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“Business Incubator Services & Customer Satisfaction”

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Management Summary

The interest in the business incubation topic is ever growing. Business incubators are mechanisms to reduce the liabilities of small and newness often attributed to start-ups. However, the literature is still inconclusive about their effectiveness (is it because of the business incubators that start-ups have a higher chance of success or do other factors play a role?). With an increasing number of business incubators worldwide, differentiation in order to be competitive is key.

Up till now, the majority of the research around the business incubation topic has been revolving around: organizational matters, success factors, performance, comparative analysis and geographical region. All from a business incubator perspective. These existing initiatives might lack an understanding where the value of the business incubators' concepts lies. Hence, a mismatch between business incubators' support services and the needs and expectations of the tenants can be the result. Therefore, this study takes on the perspective of the tenant, to assess the impact of the service offerings of business incubators on customer satisfaction/dissatisfaction levels. In order to highlight the preferences of the tenants, so that incubator management can adjust their service offerings accordingly. To do so, the following focal research question was constructed: "*Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?*".

This study takes on a quantitative approach by employing the Kano model. In total 24 responses were obtained from 2 different incubators; 'De Gasfabriek' and 'Ace Incubator / Startup Village'. Results regarding the impact of services on satisfaction/dissatisfaction were obtained for the overall sample (all 24 responses) and for both 'De Gasfabriek' and 'Ace Incubator / Startup Village' individually. Moreover, the overall sample has also been grouped according to the tenant specific variable: 'Entrepreneurial experience'.

Based on the overall sample used in this study, it can be concluded that on average, the services offered by business incubators have a higher impact on satisfaction than on dissatisfaction. Moreover, the services with the highest impact on satisfaction based on the overall sample were found to be: Credibility/visibility enhancement, Access to skilled workforce and Workshops, training and education. Whereas the services with the highest impact on dissatisfaction according to the overall sample were found to be: IT-related services/network support, Affordable office space and Security. Furthermore, recommendations are provided concerning which of the 42 services should be included and which should be avoided, based on the overall sample. Besides the overall findings, segmentation prior to the application of the Kano model resulted in different outcomes per incubator as well as according to the tenant specific variable 'Entrepreneurial experience'. Hence, underlining the ability of the Kano model to account for differences within segments.

All in all, this study presented easily understandable and reproducible results for theory and practice. The customer satisfaction construct has been introduced in the BI literature. The findings provide an empirical contribution by enhancing the knowledge about satisfaction levels attributed to support services of BIs. Moreover, a methodological contribution has been made by introducing the Kano model as a method in the BI context. In practice, researchers, incubator management, and other stakeholders can use this paper to assess the impact satisfaction/dissatisfaction of the services (currently provided or to be provided in the future) by business incubators for individual tenants. For practitioners, this can lead to insights as to how to allocate their effort and resources regarding their service offerings. So that ultimately the business incubator and its respective manager can: 1) offer start-ups with better and personalized assistance to facilitate successful and self-sustaining ventures and 2) stand out in doing so, thereby outperforming its rivals to attain a competitive advantage.

Keywords: Business Incubators (BIs), Tenants, Services, Customer Satisfaction, Needs, Expectations, Kano Model

Preface

The submission of this master thesis marks a new beginning in my life. An educational period of 21 years has come to an end. It was just after wrapping everything up, that I reflected on my life in that way and I discovered, that with the exception of the first 4 years when I was a toddler, I have been a student my entire life. From elementary school, to high school and finally University, I developed myself to the person I am today. Although, I am aware that learning and developing is a never-ending and on-going process, I can state with confidence that graduating with 2 master degrees will be the final stop of my academic career.

Studying at the University of Twente during both the bachelor and master phase has been an eventful journey, with its ups and downs, for me as a person. Moving from Amsterdam to Enschede was quite a shock in the beginning, and it still is. However, I do not regret the decision by any means. I changed as a person and I believe in the right way. The double degree program in combination with TU-Berlin was a bonus. The practical character of Innovation Management & Entrepreneurship master in Berlin gave me a sneak peek into how my theoretical knowledge could be applied in the real world. And hence, I am more eager than ever to make the transition from University to a real company. It is here in which I want to absorb and obtain as much practical knowledge and experience as possible, so that I have all the ingredients in place to become a successful entrepreneur in the future.

The master thesis in front of you resembles a wild ride on its own. Hectic private matters, followed by a period of severe illness have delayed the process quite significantly. However, we never gave up. And with 'we' I mean all the persons involved in the process, who always retained their faith in me and encouraged me to push when I was facing rough times. Hence, I want to take the opportunity to thank all of them for their support.

Starting off with my 1st supervisor Rainer Harms from the University of Twente. I would like to thank him for his patience and support along the whole master thesis project. In the end, it took far longer than expected. And this can be solely attributed to me. In the beginning, I did not know what I wanted and I kept changing my subject. However, Rainer kept his cool and offered me constructive feedback when I needed it. Regardless of my sloppy communication towards him in my period of sickness. Thanks again.

Next, I would like to thank my company supervisor, Harry Romkema, from De Gasfabriek. He has been extremely supportive during the course of the project and very welcoming in every respect. I learned a lot from him, things far beyond the scope of this Master thesis, that will help me later on in my career. Also, I wish him and the other founders and tenants of the De Gasfabriek luck in their journey.

As a means of appreciation, I would also like to express my gratitude towards my 2nd supervisor Isabella Hatak and my 3rd supervisor Karina Cagarman for their availability to assist me along the graduation process on such short notice.

Furthermore, my student advisor Charlotte Röring and Uzi Wandt (office for educational affairs) have been extremely helpful in planning the graduation ceremony and making sure all administrative issues were sorted out in time. Thanks again.

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1. Introduction

Business incubation is a hot topic nowadays. Start-ups are seen as the source of (radical) innovation (Ahuja and Morris Lampert, 2001), however they often fail at succeeding. The clear majority of start-ups fail within a few years of their initiation (Stokes, Wilson and Mador, 2010). Researchers argue this is because small and new businesses are very fragile and vulnerable especially in the beginning phase. They for example lack: build-up credibility, have only a few network partners or their inexperience leads to information asymmetries (Phan, Siegel and Wright, 2005). These liabilities attributed to start-ups are denoted as liabilities of smallness and newness (Soetanto and Jack, 2013). To overcome such business failure, entrepreneurs often resort to support organizations such as business incubators (BIs) (Lalkaka and Bishop, 1996).

A common definition of what a BI is and what it consists of still lacks (Hackett and Dilts, 2004). However, there seems to be some consensus and overlap among the many definitions existing in the literature. For example, Al-Mubarak and Busler (2011) state that business incubators are economic development tools. Rothaermel and Thursby (2005) go one step further in their definition, by not only mentioning the end goal, but also making an addition about the means to arrive there. According to them, BIs are mechanisms to reduce the rate of small business failure and to stimulate new business creation. Hannon (2003) shares this objective in his definition and opens up the black 'mechanisms' box. According to him, effective business incubation is about the construction of an encouraging learning environment in which supportive services are offered by the business incubator, so that new companies are provided with an opportunity to reach their potential. The most conclusive and commonly used definition of a BI stems from the same researchers who pointed out the lacking definition. According to Hackett and Dilts (2004) *"a business incubator is a shared office-space facility that seeks to provide its incubatees (i.e. "portfolio-" or "client-" or "tenant-companies") with a strategic, value-adding intervention system (i.e. business incubation) of monitoring and business assistance. This system controls and links resources with the objective of facilitating the successful new venture development of the incubatees while simultaneously containing the cost of their potential failure."* (p.41). As indicated in this definition, the client of a BI is addressed in many different ways. In order to provide consistency in this study, the term 'tenant' will be used from now on in the remainder of this thesis.

What becomes apparent from the above is that BIs offer various services to their tenants to facilitate them into becoming self-sustaining, successful companies. Although there seems to be some general understanding around the BI concept, it is also worth pointing out that a 'Business Incubator' is somewhat of an umbrella term (Barrow, 2001). Frequently other used terminologies of BIs include: 'Research Parks', 'Innovation Centers', 'Seedbeds', 'Science Parks', 'Knowledge Parks', 'Industrial Parks', 'Technopoles' and 'Networked Incubators' and 'Business Accelerators' (Theodorakopoulos, Kakabadse, and McGowan 2014).

The amount of BIs has grown substantially over the past few years (Mitra, 2013). From the establishment of the first officially identified BI in New York in 1956 (Lewis, 2001), it is believed that there are over 7500 BIs worldwide (Mitra, 2013). On the one hand, this increase, as in any other business, shows that there is a market for support organizations, whilst on the other hand it means more competition (Mayer, Melitz and Ottaviano, 2014). In order to attain differentiation and a (possible) competitive advantage, organizations should create customer value according to Butz and Goodstein (1996).

Up till now the main body of research in the field of BIs has focused predominantly on areas as: organization, success factors, performance, comparative analysis and geographical region (Isabelle, 2013). Moreover, the research focus is primarily from the perspective of the BI and not from a tenants (customers') perspective (Abduh, 2003; Dowling, 1997). According to Abduh, D'Souza, Quazi and Burley (2007), these existing initiatives might lack an understanding where the value of the business incubators' concepts lies. Mainly due to a

mismatch between business incubators' support services and the needs and expectations of the tenants (Bruneel et al., 2012). Developing an understanding of what customers seek in a product or service is vital for a BI to align tenants' needs and expectations with their offerings (Bruneel et al., 2012). However, the customer perceived value construct is very complex (Khalifa, 2004), in the sense that it is difficult to measure what and how valuable a product or service is to a customer (Smith and Colgate, 2007). According to the mediated impact model in the research of Eggert and Ulaga (2002), customer perceived value leads to customer satisfaction. Hence, although a distinct construct, measuring the level of customer satisfaction a product or service brings about to a customer is important and can be key to gain a sustainable competitive advantage (Matzler and Hinterhuber, 1998).

Customer satisfaction is a topic which is not touched upon very often in business incubator literature, especially in terms of tenants' satisfaction with the assistance services provided by their incubators (Allen and McCluskey, 1990). Although a couple of studies have made a first step (Abduh et al., 2007; Robinson and Stubberud, 2014). Their methods seem to lack. For example: the study of Abduh et al. (2007) made use of an own developed satisfaction matrix (SATMAT), which calculated satisfaction by deducting the mean perceived effectiveness of service provision from the mean importance of a service. Meaning that both should be known ex ante and services must already been provided. This approach thus lacks any power to measure the satisfaction levels attributed to potential 'new-in-the-pipeline' and currently unknown offerings.

Hence, this study aims to fill this gap by taking on a customer satisfaction approach. Thereby focusing on services which are already provided, but also on services which are perhaps to be provided in the future. So that a better understanding can be developed around the needs and expectations of BI tenants. In order to do so, the following research questions have been developed:

The focal research question in this study is:

- Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?

To assist in answering the main research question, the following sub-research questions have been developed:

- Which services are offered to Business Incubator (BI) tenants?
- To what extent differ the identified services in terms of the impact on customer satisfaction and dissatisfaction levels for tenants of different BIs?

To answer these questions, the following methods have been employed: first a systematic literature review in combination with a qualitative pre-study yielded a complete list of services to be offered by BIs. Second, this study employed a quantitative method in the form of the Kano model to assess satisfaction levels attributed to the services offered by BIs in order to give answer to the focal research question.

The planning for the rest of the study is as follows: first, a literature review forms the theoretical basis for the remainder of the study. In chapter 2, the literature review is divided into two parts. Chapter 2.1 hosts a systematic literature review on BI service offerings. Here, a list of the most referred-to support services is provided. To arrive at a more complete list of services, additions were made based on the outcomes of a qualitative pre-study in which I asked BI tenants which services they deemed important and why. In chapter 2.2 a standard literature review on the current body of knowledge regarding customer satisfaction is provided. Moreover, a connection between customer satisfaction and the BI construct is made. The result of chapter 2 is the theoretical framework, comprising of a tool to measure customer satisfaction levels attached to the service offerings as identified both in the literature as well as through the qualitative interviews. Chapter 3 covers the methodology of

this study. Here, the Kano model will be elaborated on in depth and the arguments behind the overall methodology will be discussed. Moreover, the identified services will be tested according to the Kano model. After this quantitative analysis, the results are presented (chapter 4). Chapter 5 of the study hosts a discussion of the results, the contributions of the findings for both academics and practitioners as well as the limitations of the study. In the end of chapter 5 a brief conclusion is provided.

This study contributes to the current literature in manifold ways. First, the customer satisfaction construct has been introduced in the BI literature. And in particular, customer satisfaction levels ascribed to the service offerings of BIs from the perspective of the tenant. Second, the results of this study showed that tenants ascribe different levels of satisfaction/dissatisfaction to different services. Moreover, this study also showed that the levels of satisfaction/dissatisfaction ascribed to support services varies among different groups of tenants. And as needs and expectations prevail customer satisfaction levels (Parasuraman et al., 1990), thereby indicating that needs and expectations differ per tenant. Hence, these findings provide an empirical contribution by enhancing the knowledge about satisfaction levels attributed to support services of BIs. Moreover, these findings are relevant in the context of entrepreneurship development research, as providing insights which services lead to high levels of customer satisfaction and which services lead to high levels of dissatisfaction can act as a first step for BIs to align tenants' needs and expectations with their offerings. Third, a methodological contribution has been made by introducing the Kano model as a method in the BI context to measure customer satisfaction levels attached to service offerings. Thereby broadening the application context of the Kano model.

In practice this study aims to yield BI managers with a direction on how to align the service offerings with the needs and expectations of their tenants. This study proposes the KANO model, in order to measure and evaluate the level of customer satisfaction attributed to BIs' service offerings for individual tenants. This way managers can develop knowledge about the incubator services needed in a quickly to clarify and quantify way (Bhattacharyya and Rahman, 2004). And moreover, they will gain an insight as to how to allocate their effort and resources regarding their service offerings. All in all, this might enable a BI and their respective manager to 1) offer start-ups with better and personalized assistance to facilitate successful and self-sustaining ventures and 2) stand out in doing so, thereby outperforming its rivals to attain a competitive advantage.

2. Literature review

This chapter hosts a systematic literature review of fundamental literature about incubation support services. Furthermore, the customer satisfaction construct will be discussed, as well as its position in the BI context. All to obtain a coherent understanding of the various concepts used throughout this study and to mark out the scope of this research. Together forming a theoretical framework which acts as the input for the quantitative part in the 'Methodology' chapter (3).

2.1 Business incubation (BI) overall assistance

The goal of BIs is to provide overall assistance to start-up companies (tenants) in order to overcome liabilities of small -and newness (Soetanto and Jack, 2013). However, the literature is still inconclusive about the effectiveness of the assistance offered by BIs (Williams and Tsiteladze, 2016). Effectiveness and performance are both hard to measure due to the necessity of longitudinal data (Modena and Shefer, 1998). Meaning, research must be performed over a longer period of time, and even then, results are hard to compare and generalize because of the large number of variables and tenant heterogeneity. As a result, various studies have made an attempt to take on a value creation perspective. Evaluating services on different criteria than effectiveness and performance, such as: importance of the service and satisfaction levels stemming from the service (Abduh et al., 2007; Robinson and Stubberud, 2014). Both from a tenants' (Abduh et al., 2007; Robinson and Stubberud, 2014), as well as a BI perspective (Smilor, 1987).

By considering these 'value creation perspective' studies as a good starting point of this study's literature review on BI overall assistance, two things become apparent. First, the adopted or self-made categorization and its respective services seem to differ from study to study. And second, the results of these studies seem to vary. Although inconsistency exists and comparing results may still be difficult, researchers attribute this variation in categorization and in results to the fact that the significance of added value of the services provided to tenants could be dependent on multiple other factors such as BI typology as well as tenants needs and requirements (Grimaldi and Grandi, 2005).

In order to dive deeper in the support services provided by business incubators, this subsection is divided into two parts. The next sub-section host a systematic literature review on the support services offered to BI tenants. Here, an overview of the categorization and its respective services will be provided along with the respective BI typology. Whereas the subsequent sub-section presents the outcomes of a qualitative pre-study, which is used to add support services not mentioned by the literature.

2.1.1 Gaining an understanding of the services offered by BIs through a systematic literature review

This sub-section will provide an overview of service offerings of BIs stemming from a systematic literature. The overall assistance is broken down in various ways in the literature, resulting in multiple different categories and services. As said before, the differences in categorization and service offerings can be attributed to the evolution of tenant's needs and requirements and as a result: BI typology (Grimaldi and Grandi, 2005). According to Al-Mubarak and Busler (2011), BIs can fall into six categories: A) Mixed technology BIs, B) Academic BIs, C) Private sector BIs, D) Technology BIs, E) Government BIs and F) NGO BIs. This categorization is also used throughout this study. Besides taking note of the BI typology of each eligible study used to extract information from in the systematic literature review, the categorization of services in this study is done by the means of tallying which categories occurred the most.

A systematic literature review is a tool to deal with conflicting findings. It often happens that there is a difference in outcomes, although studies investigated the same matter. This can be due to differences, flaws or chance (sampling variation). Hence, the complete or overall picture is not clear. In the case of this thesis, no such systematic review has been undertaken to provide a complete picture of the support services offered by BIs. Hence, this thesis will take on a systematic approach in order to answer the first sub-question: “Which services are offered to Business Incubator (BI) tenants?”.

Systematic reviews aim to address the problems as mentioned above by *identifying, critically evaluating* and *integrating* the findings of all ‘relevant’ studies (Kitchenham, 2004; Siddaway, 2014). And this is exactly what differentiates a systematic literature review from a normal type of literature review. In a systematic literature review, explicit inclusion and exclusion criteria path the way for the search criteria for literature and hence by the means of these criteria the researcher ends up with the ‘relevant’ studies. Moreover, since the search criteria are constructed and hence known *ex ante*, the search for literature and the yielded studies are repeatable for every other person who adheres to the search criteria (Kitchenham, Brereton, Li, Budgen and Burn, 2011).

Following the guide of Siddaway (2014), five key stages need to be addressed when undertaking a systematic literature review: 1) scoping, 2) planning, 3) identification (searching), 4) screening and 5) eligibility.

In the first scoping stage, a clear and narrow research question should be defined. As already indicated in the introduction of this thesis, the sub-research question that is to be answered in this sub-section is: “Which services are offered to Business Incubator (BI) tenants?”.

The second planning stage concerns the planning of the systematic literature review. Here the (sub)-research question is broken down into individual concepts to create search terms. Moreover, the individual concepts are checked for synonyms and singular/plural forms amongst others (see Figure 1). In this thesis, the alternative terms and concepts are constructed via two ways. The first is the individual experience with the literature around the BI construct and the second is the website for business synonyms: <http://www.thesaurus.com>.

Figure 1. Breakdown of the first (sub)-research question.

Second sub-question:	Which	services	are	offered	to	Business Incubator	Tenants?
Synonyms:	That, what, whichever and whatever	Support, aid, help, offering, activities and assistance	-	Provide, submit, suggest and propose	for	Support Organization, Research Parks, Innovation Centers, Seedbeds, Science Parks, Knowledge Parks, Industrial Parks, Technopoles, Networked Incubators and Business Accelerators	incubatees, customers, companies, firms, entrepreneurs, renters and occupants
Singular/plural forms, verbal forms and adjectives:	-	Services, service, support, supporting, aid, help, helping, offering, offers, offer, activities, activity, assistance and assist	Are, is and be	Offered, offer, offers, offering, provide, providing, provided, provision, submit, submitting, submitted, submission, suggest, suggesting, suggested, suggestion, propose, proposing, proposed and proposition	-	Business Incubator, Business Incubation, Business Incubators, Incubator, Incubation, Incubators, Support Organization, Support Organizations, Research park, Research parks, Innovation Center, Innovation Centers, Seedbeds, Seedbed, Science Parks, Science Park, Knowledge Parks, Knowledge Park, Industrial Parks, Industrial Park, Technopoles, Technopole, Networked Incubators, Networked Incubator, Networked Incubation, Accelerator, Accelerators, Business Accelerator and Business Accelerator	Tenants, tenant, incubatees, incubatee, customer, customer, companies, company, firm, firm, entrepreneurs, entrepreneur, renters, renter, occupants and occupant
Different spellings:	-	-	-	-	-	-	-
Broader/narrower terms:	-	-	-	-	-	-	-
Classification terms used by databases:	-	-	-	-	-	-	-

Besides breaking down the research question, preliminary inclusion and exclusion criteria are defined in the second stage. The aim here is to formulate search terms and criteria so that the yielded literature sources are exhaustive and representative of the studies conducted on the topic of interest. Moreover, by formulating the search terms and inclusion and exclusion

criteria, the literature review is repeatable for every other person (Kitchenham, Brereton, Li, Budgen and Burn, 2011).

The inclusion and exclusion criteria need to be objective and unbiased. Moreover, they set the boundaries and scope of the review (Siddaway, 2014). Inclusion criteria are the elements of an article that must be present in order for it to be eligible for inclusion in the systematic literature review. Whereas exclusion criteria are the elements of an article that disqualify the study from inclusion in the systematic literature review. Hence, the order is to first look at the inclusion criteria to make the lion share shifting and thereafter focus on the exclusion criteria. This will be explained more thoroughly in the screening stage. In Figure 2 below, the inclusion criteria of this systematic literature review on BI support services are presented, whereas in Figure 3 the exclusion criteria are presented.

Figure 2. Inclusion criteria.

Inclusion criteria:		
No.	Criteria:	Reason for inclusion:
1	Studies with 'Incubator' or a synonym or different singular/plural form or verbal form or adjective for 'Incubator' (see Figure.....). in the title	Only end up with studies in line with the field and topic of this master thesis. Moreover, synonyms or different singular/plural forms or verbal forms or adjectives are taken into account to include as many potentially relevant articles as possible (Siddaway, 2014)
2	Published work (articles and reviews)	Reliable sources
3	Post - 1983	The study of Temali and Campbell in 1984 can be seen as the starting point of incubator-incubation research (Hackett and Dilts, 2004a).
4	Needs to fall into the subject area's: 1. Business, Management and Accounting or 2. Economics, Econometrics and Finance	Only end up with studies in line with the field and topic of this master thesis
5	All incubator types	Goal is to arrive at a complete list of support services, irrespective of incubator type
6	All countries	Goal is to arrive at a complete list of support services, irrespective of country of origin
7	All types of studies	Goal is to arrive at a complete list of support services, irrespective of type of study
8	All research designs	Goal is to arrive at a complete list of support services, irrespective of research design
9	All measures	Goal is to arrive at a complete list of support services, irrespective of measures

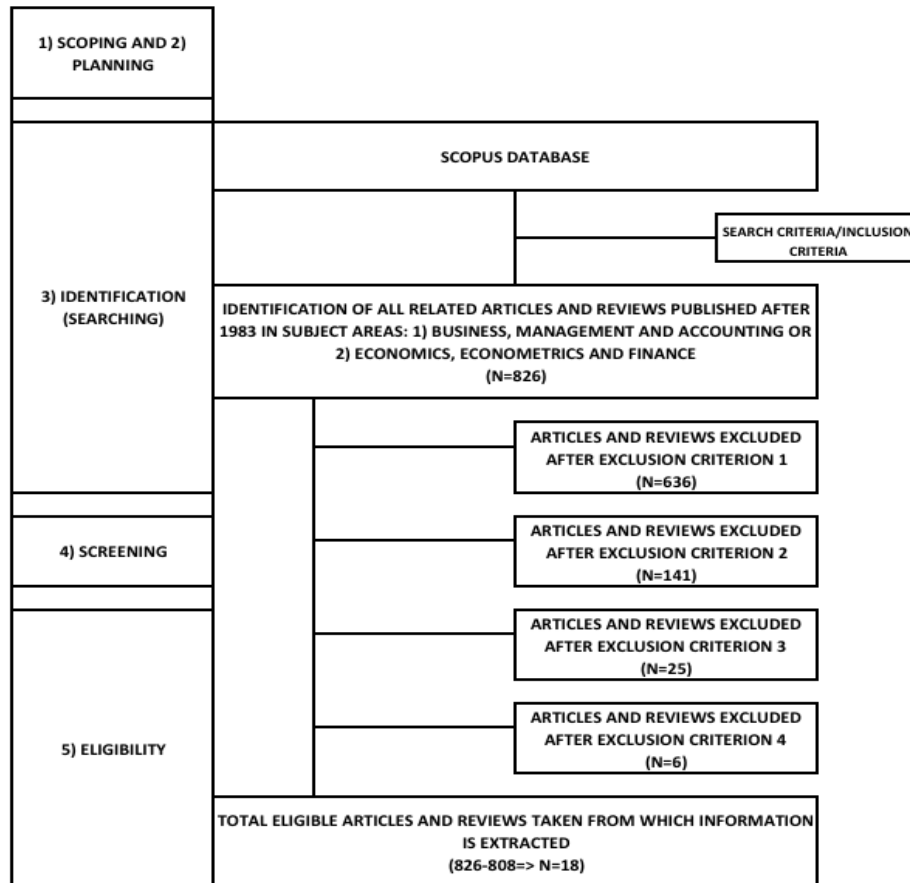
Figure 3. Exclusion criteria.

Exclusion criteria		
No.	Criteria:	Reason for exclusion:
1	Below 20 citations	Incorporation of quality work as well as commonly used and referred to articles and reviews
2	No mentioning of 'services' or a synonym or different singular/plural form or verbal form or adjective for 'services' (see Figure.....) in the abstract. Moreover, the service has to be in conjunction with the 'incubator' or a synonym or different singular/plural form or verbal form or adjective for 'Incubator' (see Figure.....). Meaning that cases such as: support in relation to empirical evidence or services as in goods and services are not taking into consideration	If there is no mentioning of 'services' in conjunction with 'incubator' in the abstract, there is a big chance that focus of the study is not on support services or that the study does not even take them into account. Again, synonyms or different singular/plural forms or verbal forms or adjectives are taken into account to not exclude potentially relevant articles and thus include as many potentially relevant articles as possible
3	No elucidation of 'services' or a synonym or different singular/plural form or verbal form or adjective for 'services' (see Figure.....) is presented in the form of a list, a table or a figure throughout the article	If a list of services is provided in the tekst, this means that services have a prominent role in the article or review. Hence there is a bigger chance the focus lies on support services and thus a more complete and extensive number of services could be provided
4	Overlapping information, either written by the same author(s), or information referred to that is already taken into consideration	Double information does not add anything to the overall outcome, hence taken out of the equation

After defining the inclusion and exclusion criteria it is necessary to create a clear record system (Siddaway, 2014). In this master thesis, this is done in two ways. First a PRISMA flow diagram is provided in Figure 4, in which the selection criteria, inclusion and exclusion criteria are displayed together with the number of yielded studies. Second in 'Appendix 1' a full

systematic reference list can be found from all articles and reviews taken into account after the search, inclusion criteria and the 1st exclusion criteria (below 20 citations).

Figure 4. Study selection process of this master thesis (PRISMA flow diagram).



Now that the inclusion and exclusion criteria are formulated and a clear record system is in place, the next identification stage hosts the actual searching for relevant literature. As can be seen in Figure 4. this master thesis uses the electronic SCOPUS database as the source of its literature input. Figure 5 shows the search criteria used by this thesis to arrive at the 'Identification of all related articles and reviews published after 1983 in subject areas: 1) Business, Management and Accounting or 2) Economics, Econometrics and Finance (N=826)'. Moreover, the rationale behind the formulation of the search criteria is also provided in Figure 5.

Figure 5. Search criteria employed by this master thesis.

SCOPUS SEARCH CRITERIA:	TITLE:	TITLE:	DOCTYPE:	PUBYEAR:	SUBJAREA:
TITLE ("Business Incubator" OR "Business Incubation" OR "Business Incubators" OR "Incubator" OR "Incubation" OR "Incubators" OR "Support Organization" OR "Support Organizations" OR "Research Park" OR "Research Parks" OR "Innovation Center" OR "Innovation Centers" OR "Seedbeds" OR "Seedbed" OR "Science Parks" OR "Science Park" OR "Knowledge Parks" OR "Knowledge Park" OR "Industrial Parks" OR "Industrial Park" OR "Technopoles" OR "Technopole" OR "Networked Incubators" OR "Networked Incubator" OR "Networked Incubation" OR "Accelerator" OR "Accelerators" OR "Business Accelerator" OR "Business Accelerator") AND DOCTYPE (ar OR re) AND PUBYEAR > 1983 AND (LIMIT-TO (SUBJAREA , "BUSI ") OR LIMIT-TO (SUBJAREA , "ECON "))	Terminologies of Theodorakopoulos, Kakabadse, and McGowan (2014). (Inclusion criterion 1).	Synonyms and Singular/plural forms, verbal forms and adjectives as indicated in Figure.... (Inclusion criterion 1).	Published article or review only. (Inclusion criterion 2).	Literature after 1983, since the study of Temali and Campbell in 1984 can be seen as the starting point of incubator-incubation research (Hackett and Dilts, 2004a). (Inclusion criterion 3).	Subject area's limited to Business and Economics. (Inclusion criterion 4).

The first lion share shifting resulting in 826 articles and reviews is made on the basis of all nine inclusion criteria, of which the first four are translated into the search criteria. As can be seen in Figure 5 above, the terminologies of Theodorakopoulos et al. (2014) and their synonyms and different forms as indicated in Figure 1 are used as search inputs for the 'TITLE' (inclusion criterion 1). Furthermore, inclusion criterion 2 prescribes that only reliable sources will be taken into consideration, hence the 'DOCTYPE' is set on articles or reviews only. Only articles or reviews from after 1983 are taken into consideration (inclusion criterion 3), because the study of Temali and Campbell (1984) can be seen as the starting point of incubator-incubation research (Hackett and Dilts, 2004). Hence the 'PUBYEAR' is set >1983. Finally, the 'SUBJAREA' is limited to: Business, Management and Accounting and Economics, Econometrics and Finance, so that the scope of the systematic literature review is in line with the scope of this master thesis (inclusion criterion 4).

As can be seen in the PRISMA flow diagram of this systematic literature review (Figure 4), this identification (searching) stage also incorporates the first exclusion criterion. This exclusion criterion prescribes that only articles and reviews with more than 20 citations on the SCOPUS database will be included and hence the rest will be excluded. The rationale behind this, is that this yields quality work as well as commonly used and referred to articles and reviews. As a result, after filtering the identified 826 articles and reviews on the basis of citation, only the first 190 results have 20 or more citations. Meaning that 636 articles and reviews are excluded. Recall from the planning stage that a full systematic reference list can be found in 'Appendix 1' consisting of precisely these 190 articles and reviews. This list forms the basis of literature input for this thesis. Moreover, all following exclusion criterion are also included in the list, so that the reader is able to follow all steps of this systematic literature review.

Next is the screening stage. Here, the titles and/or abstracts of the identified works are 'screened' according to the remaining exclusion criteria. Exclusion criterion 2 of this master thesis prescribes that support services or a synonym or different singular/plural form or verbal form or adjective for 'services' (see Figure 1) has to be mentioned in the abstract. Moreover, the service has to be in conjunction with the incubator or a synonym or different singular/plural form or verbal form or adjective for 'Incubator' (see Figure 1). The reason behind the formulation of the 2nd exclusion criterion is as follows: If there is no mentioning of 'services' in conjunction with 'incubator' in the abstract, there is a big chance that the focus of the study is not on support services or that the study does not even take them into account. After this screening stage only 49 articles and reviews remained and hence another 141 were excluded. Consult to 'Appendix 1' to see which articles are excluded in this stage.

The eligibility stage is the final stage of the guide provided by Siddaway (2014). It is here in which the full text versions of all remaining articles and reviews are sifted in order to include eligible articles for the extraction of relevant information. Exclusion criterion 3 and 4 are part of this final stage. Exclusion criterion 3 prescribes that services or a synonym or different singular/plural form or verbal form or adjective for 'services' (see Figure 1) must be presented in the form of a list, a table or a figure throughout the article or review. Hence, the full text should be taken into consideration. The logic behind this is that if a list of services is provided in the text, this means that services have a prominent role in the article or review. Hence, there is a bigger chance the focus lies on support services and this in turn will potentially result in a more complete and extensive list of services, which is the main goal of this systematic literature review. After incorporating this exclusion criterion, only 24 articles and reviews remained and hence 25 were excluded. Consult to 'Appendix 1' to see which articles are excluded in this stage. Figure 6 provides an overview of the 24 remaining articles and reviews, filtered on the year of publication.

Figure 6. Literature list as a timeline after exclusion criterion 3.

Original No:	No:	Authors:	Title:	Publication year:	Publication month:	[Exclusion criterion 1] Cited by:	[Exclusion criterion 2] 'Service' in conjunction with 'incubator' in abstract:	[Exclusion criterion 3] 'Incubator Services' presented in the form of a list, a
146	1	Udell	"Are business incubators really creating new jobs by creating new business and new	1990	June	27	Yes	Yes
107	2	Greene and Butler	"The minority community as a natural business incubator"	1996	May	39	Yes	Yes
7	3	Mian	"Assessing value-added contributions of university technology business incubators to	1996	May	189	Yes	Yes
100	4	Mian	"The university business incubator: A strategy for developing new research/technology-based	1996	September	43	Yes	Yes
9	5	Hansen, Chesbrough, Nohria and Sull	"Networked incubators. Hothouses of the new economy."	2000	September	178	Yes	Yes
138	6	Thierstein and Wilhelm	"Incubator, technology, and innovation centres in Switzerland: Features and policy	2001	October	30	Yes	Yes
14	7	Rice	"Co-production of business assistance in business incubators: An exploratory study"	2002	March	147	Yes	Yes
72	8	Phillips	"Technology business incubators: How effective as technology transfer mechanisms?"	2002	August	56	Yes	Yes
111	9	Wiggins and Gibson	"Overview of US incubators and the case of the Austin Technology Incubator"	2003	January	37	Yes	Yes
132	10	Von Zedtwitz	"Classification and management of incubators: aligning strategic objectives and competitive scope for new business facilitation"	2003	January	31	Yes	Yes
13	11	Grimaldi and Grandi	"Business incubators and new venture creation: An assessment of incubating models"	2005	February	147	Yes	Yes
43	12	Carayannis and Von Zedtwitz	"Architecting gloCal (global-local), real-virtual incubator networks (G-RVNs) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: Lessons learned and best practices from current development and business incubation	2005	February	84	Yes	Yes
20	13	Chan and Lau	"Assessing technology incubator programs in the science park: The good, the bad and the	2005	October	128	Yes	Yes
83	14	Von Zedtwitz and Grimaldi	"Are service profiles incubator-specific? Results from an empirical investigation in Italy"	2006	February	49	Yes	Yes
125	15	Abduh, D'Souza, Quazi and Burley	"Investigating and classifying clients' satisfaction with business incubator services"	2007	January	32	Yes	Yes
170	16	Hytti and Mäki	"Which firms benefit most from the	2007	January	23	Yes	Yes
93	17	McAdam and Marlow	"Building futures or stealing secrets?: Entrepreneurial cooperation and conflict within	2007	August	46	Yes	Yes
11	18	Bergek and Norman	"Incubator best practice: A framework"	2008	February	173	Yes	Yes
37	19	McAdam and McAdam	"High tech start-ups in University Science Park incubators: The relationship between the start-up's lifecycle progression and use of the incubator's resources"	2008	May	93	Yes	Yes
169	20	McAdam and Marlow	"A preliminary investigation into networking activities within the university incubator"	2008	June	23	Yes	Yes
63	21	Scillitoe and Chakrabarti	"The role of incubator interactions in assisting new ventures"	2010	March	62	Yes	Yes
46	22	Bruneel, Ratinho, Clarysse and Groen	"The evolution of Business incubators: Comparing demand and supply of business incubation services across different incubator	2012	February	78	Yes	Yes
97	23	Ballingtoft	"The bottom-up business incubator: Leverage to networking and cooperation practices in a self-generated, entrepreneurial-enabled	2012	May	44	Yes	Yes
179	24	Vanderstraeten and Matthyssens	"Service-based differentiation strategies for business incubators: Exploring external and	2012	December	21	Yes	Yes

The filtering on year of publication is chosen deliberately as a starting point for exclusion criterion 4. This final exclusion criterion prescribes that articles and reviews will be excluded on the basis of overlapping information, either written by the same author(s), or information referred to that is already taken into consideration. The reason behind this, is quite straight forward. Namely that double information does not add anything to the overall outcome.

Filtering the remaining list of 24 articles and reviews on year of publication, eased the process of identifying overlapping information. For example: the same author could have contributed to multiple of the 24 remaining articles and reviews published in different years. And hence, he or she could have re-used a list of identified services in a later work. Figure 7 provides an overview of overlapping authors and information. As can be seen in Figure 7 there were several cases of overlapping authors. This did not result in overlapping information in all cases. Moreover, in the case of Scillitoe and Chakrabarti (2010), overlapping information was identified, although no overlapping authors were in place. Their study employed the same distinction and list of services as in Mian (1996). After consulting each source for overlapping information, 6 sources were excluded from the remaining list of 24 sources. The precise reasoning for exclusion is also provided in Figure 7.

Figure 7. Overlapping authors and information literature.

No:	Author(s):	Overlapping authors (1)	Overlapping authors (2)	Overlapping authors (3)	Overlapping authors (4)	Overlapping authors (5)	Overlapping information:	Reason for exclusion:
1	Udell, 1990						No	
2	Greene and Butler, 1996						No	
3	Mian, 1996	X					No	
4	Mian, 1996	X					Yes	Same distinction and list of services as in 3. Mian (1996)
5	Hansen, Chesbrough, Nohria and Sull, 2000						No	
6	Thierstein and Wilhelm, 2001						No	
7	Rice, 2002						No	
8	Phillips, 2002						No	
9	Wiggins and Gibson, 2003						No	
10	Von Zedtwitz, 2003		X				No	
11	Grimaldi and Grandi, 2005			X			No	
12	Carayannis and Von Zedtwitz, 2005		X				Yes	Same distinction and list of services as in 10. Von Zedtwitz (2003)
13	Chan and Lau, 2005						No	
14	Von Zedtwitz and Grimaldi, 2006		X	X			Yes	Same distinction and list of services as in 10. Von Zedtwitz (2003)
15	Abduh, D'Souza, Quazi and Burley, 2007						No	
16	Hytti and Mäki, 2007						No	
17	McAdam and Marlow, 2007				X	X	No	
18	Bergek and Norman, 2008						No	
19	McAdam and McAdam, 2008				X		Yes	Same distinction and list of services as in 17. McAdam and Marlow (2007)
20	McAdam and Marlow, 2008				X	X	Yes	Same distinction and list of services as in 17. McAdam and Marlow (2007)
21	Scillitoe and Chakrabarti, 2010						Yes	Same distinction and list of services as in 3. Mian (1996)
22	Bruneel, Ratinha, Clarysse and Groen, 2012						No	
23	Ballingtoft, 2012						No	
24	Vanderstraeten and Matthyssens, 2012						No	

Hence, after having applied all the search criteria, inclusion and exclusion criteria 18 sources deemed eligible for the extraction of information to construct a list of services for this master thesis. These 18 sources can be seen in bold in both Figure 7 as well as in the full systematic reference list in 'Appendix 1'.

Since all the stages of Siddaway (2014) regarding a systematic literature review have now been undertaken, it is time to extract the information from the 18 eligible sources.

All useful information from the 18 eligible sources is displayed by the means of a timeline in 'Appendix 2'. As can be seen and as indicated before, studies use a different (pre-)categorization as well as a different formulation of services. Moreover, BI typology as the unit of analysis differs between the sources. Therefore, both categorization as well as different service formulations have been tallied and distinguished in this thesis in order to arrive at a compelling list of services.

The full tally process of the categorization went as follows: Categories used were grouped and placed under one header. Often different words had similar meanings and therefore they could be bundled together. Then they were counted for each header and ultimately 5 categories were constructed on the basis of occurrence. The full list with counts can be found in step 1 of 'Appendix 3'. The process of the formulation of services was almost similar. However, more variation existed between the various formulations. Hence, groups were self-constructed and all mentioned services were placed under these headers. Furthermore, some denominations were more inclusive or detailed than others. Whereas others could comprise

various services under one header; e.g. Office furniture comprises a telephone, a desk, a chair etc. On the basis of my own perception all mentioned services were distributed among overarching headers. The distribution and its accompanying headers can be seen in step 2 of 'Appendix 3'.

In the end this systematic literature review on the support services of BIs yielded 5 different service categories and in total 38 different services were distinguished (see Figure 8). Moreover, the timeline of BI service offerings has been rearranged into a compelling literature overview of BI service offerings, also taking into account BI typology (see 'Appendix 4').

Figure 8. Categorization and services according to the systematic literature review.

Categorization:	1. PHYSICAL INFRASTRUCTURE	4. SHARED OFFICE SERVICES	2. BUSINESS SUPPORT SERVICES	3. NETWORKING	5. FINANCING
Services:	<ul style="list-style-type: none"> Affordable office space Office equipment/furniture Credibility/visibility enhancement Conference/meeting room Cafeteria/lunch room Library Sports facilities Technology specific infrastructure 	<ul style="list-style-type: none"> Security Custodial/maintenance Extra storage IT-related services/network support Common secretary/receptionist Group insurances 	<ul style="list-style-type: none"> Help with business plan Marketing/sales R&D (product/service development) Accounting and financial management Legal advice HR management/recruiting Public relations/referral Management assistance Information technology (IT) Workshops, training and education Coaching/mentoring Pooled buying programs Help with relocation 	<ul style="list-style-type: none"> Outside business connections Business connections between tenants Outside strategic partners Access to outside business support service providers Mediation/links with institutions such as Universities Information and technology transfer Access to skilled workforce 	<ul style="list-style-type: none"> Equity financing Debt financing Assistance with government grants and loans Subsidies related to cost reduction

A few things are worth pointing out regarding the obtained list of 38 services. When looking at the literature timeline in 'Appendix 2', The University related service category of Mian (1996) is deliberately left out, since no B) Academic incubators will be included as the unit of analysis in the next 'Methodology' chapter (3) of this thesis. Hence, the addition of this category would not add any insights to this research given the set scope.

Furthermore, it becomes apparent that some services are only provided in B) Academic and D) Technology BIs, whereas other services are offered in various types of BIs or in a general overview BIs (meaning no specific type, but various typologies have been taken into consideration) (see 'Appendix 4').

In the case of the services acknowledged and offered both in the B) Academic and the D) Technology BIs: Outside business connections and Subsidies related to cost reductions, this could be the result of hosting academics/students who do not have a lot of money to spend on for example the rent of their office space (Grimaldi and Grandi, 2005). Hence, helping them out by providing them with a service to reduce rent in difficult times could be beneficial for this group (Grimaldi and Grandi, 2005).

2.1.2 Gaining a deeper understanding through a qualitative pre-study

This sub-section summarizes the findings of a qualitative pre-study in which open interviews were conducted with tenants of BI: 'De Gasfabriek'. 'De Gasfabriek' is a BI in Deventer in the east part of the Netherlands. It has been originated in October 2015 and has had its official opening ceremony in October 2017. 'De Gasfabriek' falls under the category: A) mixed technology BI as described by Al-Mubarak and Busler (2011). More information regarding 'De Gasfabriek' will be provided in the next 'Methodology' chapter.

The purpose of the pre-study was to discover services which were not accounted for in the literature or addressed in the previous sub-section's systematic literature review. Due to the informal nature of this pre-study, no strict selection criteria regarding the tenants, other for them to be tenants (customers) of 'De Gasfabriek' were put in place. Open one-on-one interviews formed the basis of the interviews. Although no standardized interview template

was designed beforehand, all tenants were asked beforehand to provide their name, age, company name, role/function, team size and entrepreneurial experience to provide the reader with background information. See Figure 9 for the characteristics of the interview subjects.

Figure 9. Characteristics of the interview subjects.

No:	Incubator:	Company name:	Industry:	Team size company:	Firm age:	Incubation duration:	Role/function:	Entrepreneurial experience:
1	De Gasfabriek	The Code crew	IT	3	2 years	2 years	Founder	4 years
2	De Gasfabriek	CoolDutch	Education	1	6 years	2 years	Founder	6 years
3	De Gasfabriek	Coinversable	IT	3	1 year	1 year	Co-Founder	1,5 years
4	De Gasfabriek	Coinversable	IT	3	1 year	1 year	Co-Founder	6 years
5	De Gasfabriek	Tijdlab	Culture	4	3 years	2 years	Co-Founder	4 years
6	De Gasfabriek	Lokaalloyaal	Technology	2	1 year	1 year	Founder	10 years
7	De Gasfabriek	Nomoni	Technology	3	0,5 year	0,5 year	Co-Founder	0,5 year
8	De Gasfabriek	Brandeniers	Branding/Marketing	4	1 year	1 year	Co-Founder	1 year

Questions asked differed from interview to interview and were asked on the basis of own interpretation and participation to ensure a smooth conversation and to obtain as much input regarding service offerings as possible. As a result of the pre-study, 4 new services could be added to the service offering overview:

- 1) Creation of an intrapreneurial ecosystem
- 2) Idea generation
- 3) Provision of a launching customer/distribution
- 4) Bread fund

To start off with the first service, 'the creation of an intrapreneurial ecosystem'. From the conversations with the tenants of 'De Gasfabriek' it became apparent that 'De Gasfabriek' has a different philosophy than other more traditional BIs. Access to capital was not mentioned very often during the interview, although in the literature the opposite holds. Tenants responded that instead of paying each other with real money within the BI and hence providing each other with business, they would rather combine forces to attain synergy and come up with solutions far better than one start-up would be able to on his own. In order to keep track of the effort put in by each individual, a special ecosystem Blockchain has been created by 'De Gasfabriek'. If for example 4 persons contribute to a project, their hours and input are directly registered in the Blockchain. So that in the case of a successful venture initiation all parties involved will be rewarded according to the effort they put in.

The second service: 'idea generation' is facilitated in the form of "Kansrijke Innovatie Kringen (KIKs)". Almost all tenants highlighted the fact that 'De Gasfabriek' offered these special innovative sessions. These open sessions are organized by 'De Gasfabriek' to discuss the current state of a micro or macro problem. Everyone is welcome. Also, people who have no relation with 'De Gasfabriek' at all. Most often, industry experts are invited as well as the tenants of the BI. Then the problem is presented and a dialogue is started. Once the problem is formulated and the scope is clear, the group collectively comes up with ideas to solve the problem. In the end, the main idea is that the tenants have the possibility to embrace such a newly develop idea so that it can be brought to life.

Service number three: 'provision of a launching customer/distribution' is provided by 'De Gasfabriek' to help their tenants in taking the next step in their business. By talking with the tenants, it became clear that most of them were still very early stage in their development. Hence, bringing them in direct contact with a corporate for its customers and distribution, could help them to gain traction early in order to move forward with their businesses. This is also underlined by one of the founders of 'De Gasfabriek'. In his vision a lot of start-ups fail not only because of the liabilities of small and newness, but also because they are executing the wrong idea or resort to capital to soon before even validating their solution in real life. In his opinion it is not capital that start-ups need in their early stages, but distribution and a launching customer. The service: 'provision of a launching customer/distribution' is different

than the provision of network opportunities with strategic partners in the sense that in ‘De Gasfabriek’ the contacts with the launching customer are actively provided. In other words, it is set as a goal for ‘De Gasfabriek’ to connect their tenants with a corporate and they will do their absolute best to accomplish that.

The fourth and final service to be added to the list of services is the provision of a ‘bread fund’. This is a monthly base salary to cover the basic needs of entrepreneurs, such as food. Therefore, it is called a ‘bread fund’. It is offered by ‘De Gasfabriek’ so that their tenants do not have to make any concessions regarding their distribution of time. Meaning they can fully focus on the business and do not need to take on an extra side job to earn money in order to survive.

Figure 10 offers a complete list of 42 service offerings, stemming from both the systematic literature review on service offerings (38) as well as the pre-study (4). Hence, acting as an answer to the first sub-question of this thesis.

Figure 10. Complete list of BI service offerings.

Categorization:	1. PHYSICAL INFRASTRUCTURE	4. SHARED OFFICE SERVICES	2. BUSINESS SUPPORT SERVICES	3. NETWORKING	5. FINANCING	6. RESULTS OF THE QUALITATIVE INTERVIEWS
Services:	<ul style="list-style-type: none"> Affordable office space Office equipment/furniture Credibility/visibility enhancement Conference/meeting room Cafeteria/lunch room Library Sports facilities Technology specific infrastructure 	<ul style="list-style-type: none"> Security Custodial/maintenance Extra storage IT-related services/network support Common secretary/receptionist Group insurances 	<ul style="list-style-type: none"> Help with business plan Marketing/sales R&D (product/service development) Accounting and financial management Legal advice HR management/recruiting Public relations/referral Management assistance Information technology (IT) Workshops, training and education Coaching/mentoring Pooled buying programs Help with relocation 	<ul style="list-style-type: none"> Outside business connections Business connections between tenants Outside strategic partners Access to outside business support service providers Mediation/links with institutions such as Universities Information and technology transfer Access to skilled workforce 	<ul style="list-style-type: none"> Equity financing Debt financing Assistance with government grants and loans Subsidies related to cost reduction 	<ul style="list-style-type: none"> Creation of an (intrapreneurial) eco-system Idea generation Provision of a launching customer/distribution Bread fund

2.2 Customer satisfaction

In order to provide an answer to the central research question: “Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?”. A deeper understanding must be obtained around the customer satisfaction construct. Hence, this part of the literature review dives deeper into this matter, starting off with the importance of customer satisfaction.

2.2.1 Importance of customer satisfaction

Customers are the most important part of any company, since the business is dependent on them (Drucker, 1994). Without customers, there is no revenue and thus no return on investment. Moreover, they also influence the acquisition of new customers through word of mouth recommendations (Dube and Maute, 1996). Therefore, gaining a deep understanding of customers is of significant managerial interest.

Since the last two decades strategic thinking has changed for many leading companies throughout the world. Where the focus predominantly lied on market share and customer acquisition, a turnaround has been made towards customer satisfaction and customer retention (Matzler and Hinterhuber, 1998). With the potential of gaining a sustainable competitive advantage as the most important motive. Whereas the former offensive strategy of gaining market share only focused on a short term competitive advantage, it was hard to

consolidate and hence gaining a sustainable competitive proved to be nearly impossible. In a context of saturated markets with increased competition and low market growth rates, the costs of attracting new customers are assumed to be five to six times higher than the costs of retaining customers (Matzler and Hinterhuber, 1998). The defensive strategy of customer retention on the other hand was purely designed to reap a sustainable competitive advantage over the long term. It assumes that customer satisfaction positively affects customer loyalty (Choi, Seol, Lee, Cho, and Park, 2008). Meaning that when the level of customer satisfaction is high, so is the level of customer loyalty. Moreover, the level of customer satisfaction is seen as an indicator of the performance of products and services and as the best indicator of the company's future (Kotler, 1991).

Research shows that high levels of customer satisfaction and customer loyalty leads to a healthy stream of cash flow, decreased transactions costs and a reduction of price elasticity (Anderson, Fornell, and Lehmann 1994.). Moreover, the cost of attracting new customers is lower with a high level of customer satisfaction, due to less negative word of mouth statements of customers and an increase in positive word of mouth recommendations (Anderson, 1998). Thereby stretching the importance of the customer satisfaction construct. According to Matzler and Hinterhuber (1998) the strategic intent is no longer to capture higher market shares than competitors, but to create a high level of customer satisfaction and loyalty in order to gain a sustainable competitive advantage. Or as Hanan and Karp (1989) summed it up: *"Customer satisfaction is the ultimate objective for every business, not to supply, not to sell, not to service, but to satisfy the needs that drive customers to do business"* (p. 467).

2.2.2 What is customer satisfaction?

As emphasized by the above, the customer satisfaction construct is of vital importance for any business. As it can be used to assess the performance of products and services as well act as an important indicator of the business' future (Kotler, 1991). Therefore, it is of significant managerial interest. But what does the term customer satisfaction mean? In order to answer this question, the customer satisfaction construct is first divided into two separate parts, namely 'customer' and 'satisfaction'.

Everyone who buys products or services from companies is a customer (Parasuraman and Grewal, 2000). Sometimes the terms customer and consumer are used interchangeably, however, there is a subtle but important difference between the two. A customer can be a consumer, but a consumer does not necessarily have to be a customer. A customer is the one who provides payment in exchange for the offer provided to him by the organization with the aim of fulfilling expectations and to maximize satisfaction, whereas a consumer is the person who ultimately consumes the product (Solomon, Marshall and Stuart, 2016). Hence, one speaks of customer satisfaction and not of consumer satisfaction, because ultimately the customer is the one who brings in the revenue.

The word satisfaction can have many specific meanings: According to Fečiková (2004) it is the result of things not going wrong. Besterfield (1994), states that satisfaction stems from satisfying the needs and desires of the customer. Whereas Kanji and E Sá (2002) point to satisfaction as pleasure or a state of delight. These interpretations reflect the rationale that satisfaction is a feeling which results from evaluating what was received against what was expected (Fečiková, 2004; Kotler and Keller, 2012). Before linking the two together, it must be pointed out that satisfaction does not necessarily have to stem from the consumption of products or services. It can also be the state of being happy with any given situation. Moreover, satisfaction varies from person to person or as the title of the research of Gūth, Koukoumelis and Levati (2011) implies: *"One man's meat is another man's poison"*. Highlighting that it is sometimes very difficult to satisfy everybody or to determine satisfaction among a group of individuals.

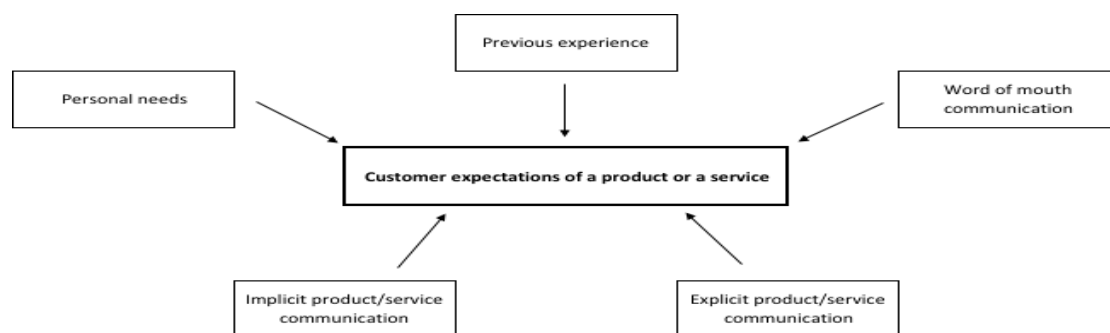
In a nutshell, customer satisfaction could be described as the pleasure obtained from a purchase. However, a definitive definition of customer satisfaction is still absent in the customer satisfaction literature. There are two conceptualizations of the customer satisfaction construct; transaction specific and cumulative (Andreassen, 2000). In the transaction specific view, customer satisfaction is seen as a post-purchase evaluation (Fornell, 1992; Oliver, 1980). This is highlighted by Tse and Wilton (1988) in their definition of customer satisfaction: *“the consumer’s response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service as perceived after its consumption”* (p. 204). The second conceptualization pictures customer satisfaction as a cumulative experience and hence an overall attitude towards a product or service (Sureshchander, Rajendran and Anantharaman, 2002). This overall attitude is not necessarily formed after a transaction. In line with this second school of thought, Giese and Cote (2000) formulate customer satisfaction as *“a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time (i.e. post-purchase, post-consumption)”* (p. 15). The cumulative approach is more useful in explaining customer behavior in the past and present and predicting it in the future (Anderson et al., 1994). Therefore, companies are more interested in cumulative customer satisfaction.

More general definitions include the one of Kotler, Armstrong, Saunders and Wong (2002) in which customer satisfaction has been defined as the extent as to which the performance of a product or services matches the buyers’ expectations. Or as delineated by Schiffman and Kanuk (2014) as: *the individual’s perception of the performance of the products or services in relation to his or her expectations”* (p. 14). What becomes apparent from the above is that expectations play an important role in almost all definitions of customer satisfaction.

2.2.3 Customer expectations

Expectations have a central role in influencing customer satisfaction and several factors determine these expectations (Lengyel, 2012). The key factors to influence and form expectations can be seen in Figure 11.

Figure 11. Sources of customer expectations based on Parasuraman, Berry and Zeithaml (1990).



Parasuraman et al. (1990) distinguish between five factors;

1. **Personal needs:** every customer has a set of key personal needs that one expects the product or service to address. These will vary from customer to customer. Hence, a clear understanding is necessary.
2. **Previous experience:** if a customer has had a previous experience with a product or service, this will partly influence future expectations.
3. **Word of mouth communication:** communication channels that alter expectations other than from the provider of products or services itself. For example: friends, colleagues and friends or objective media.

4. **Explicit product/service communication:** statements, flyers and commercials from the provider of products or services itself.
5. **Implicit product/service communication:** buildings, stores and other factors of physical appearance.

Lengyel (2012) states that it becomes particularly important to understand these factors, when comparisons between products or services should be made and customer satisfaction levels with these products or services are assessed.

Then there is the expectation confirmation/disconfirmation paradigm of customer satisfaction/dissatisfaction which forms the basis of the development of the customer satisfaction construct (Oliver, 1980). According to the paradigm customer satisfaction consists of three levels or states, as can be seen in Figure 12. A state of dissatisfaction, a state of satisfaction and a state of delight. A state of dissatisfaction occurs when there is a default or things are going wrong. In other words, a product or service did not meet a customers' expectations (negative disconfirmation). As a result, the customer will complain about the product or service and a state of dissatisfaction is reached. In order to mitigate this state of dissatisfaction and to reach a state of satisfaction, a company needs to make sure there are zero defaults regarding their products or services. And moreover, the expectations of the customers need to be met. Hence, a state of customer satisfaction is reached when everything goes to plan and there are no surprises for the customer (confirmation). The last state of true customer satisfaction, also known as customer delight, can only be reached when the customer is positively surprised. This state of true customer satisfaction is the result of excellent and attractive features of a product or service far exceeding a customers' expectations (positive disconfirmation). Thereby creating a positive emotional reaction, which leads to positive word of mouth recommendations. Also, worth pointing out is that the effect of negative disconfirmation on satisfaction is far greater than the effect of positive disconfirmation (Hill, 1986).

Figure 12. Delight response curve based on Keiningham, Pruden and Vavra (2004).



2.2.4 Measuring customer satisfaction

Knowledge about the state of satisfaction of customers is thus very important for companies. Because it delivers them with valuable information how to adjust certain products or services in their quest for customer delight and hence turn negative word of mouth communication into positive. This knowledge can be obtained through measuring customer satisfaction; however, this could be very difficult at times.

Measuring customer satisfaction is an attempt to measure individual human feelings (expectations ex ante input vs. perceived performance ex post output) (Agbor, 2011). Hence, different customers can have different expectations as well as different perceptions regarding performance. Therefore, measuring customer satisfaction is subjective and non-quantitative

(Grewal, Levy and Kumar, 2009). Since the measurement is not exact, sampling or statistical analysis is required. Moreover, it is also very important to clearly define measures and parameters beforehand. These will vary per context. For example: services require different aspects to be measured than products and even the measurement between different services or different products varies according to the industry (Agbor, 2011). Over time different frameworks and models have been used as a methodological pillar to measure 'satisfaction'. Often, they are specifically designed to measure a certain type of satisfaction. For example, the two-factor theory by Herzberg, Mausner and Snydermann (1959). In this model, motivational factors which cause satisfaction and hygiene factors which cause dissatisfaction are separated as two independent dimensions. The job satisfaction construct is obviously different than the customer satisfaction construct. However, the model which is most widespread used by academics as well as practitioners to measure customer satisfaction in both a product as a service context originates from the two-factor theory (Rashid, Tamaki, Ullah and Kubo, 2010).

The Kano model, designed by Professor Noriaki Kano in the 1980's, is based on the two-factor theory, but suggests there are not two, but three fundamental ways to view and measure (customers) satisfaction. The Kano model provides a framework to consider, measure and implement activities that not only cause dissatisfaction or provide customer satisfaction, but result in customer delight (Anisor, Adela-Eliza and Luciana, 2010). Resort to Appendix 5 for a complete overview of studies and research settings in which the Kano model has been used. The Kano model will be further elaborated on in the next 'Methodology' chapter (3).

2.2.5 Customer satisfaction in the BI context

Up till now the satisfaction construct has been rather untouched in the BI literature. Although a couple of studies have made a first step (Abduh et al., 2007; Robinson and Stubberud, 2014). For example: the study of Abduh et al. (2007), in which support services offered by BIs were grouped according to satisfaction levels experienced by the tenants. They found in their study that tenants were generally more satisfied with facility related services than with counselling and business networking assistances services. Even though some comparisons with the study of Abduh et al. (2007) are provided throughout this thesis, the approach, categorization and especially the methods used have been very different between this thesis and the study of Abduh et al. (2007). The study of Abduh et al. (2007) for example made use of an own developed satisfaction matrix (SATMAT), which calculated satisfaction by deducting the mean perceived effectiveness of service provision from the mean importance of a service. Hence, meaning that both should be known *ex ante* and services must already been provided. The satisfaction output measured in the study of Abduh et al. (2007) is thus merely an outcome of experienced satisfaction. In this study however, the Kano model will assess the satisfaction levels of services which are already provided, but also for services which are perhaps to be provided in the future. In other words; satisfaction levels attributed to potential 'new-in-the-pipeline' offerings.

What can be learned from this section so far, is that cumulative customer satisfaction is a very valuable construct to explain customer behavior in the past and present and to predict it in the future. Cumulative customer satisfaction is the state of mind that customers have about a product or service when their expectations have been met or exceeded over its lifetime. Moreover, the expectation construct contains five factors, which all have an influence on the creation of expectations. Furthermore, measuring customer satisfaction is difficult and subjective, however can be done by the means of sampling and statistical analysis. The Kano model is a methodological pillar often used to measure customer satisfaction levels attributed to different aspects of a product or service. However, up till now the Kano model has not been introduced in the BI context. Studies from Abduh et al. (2007) and Robinson and Stubberud (2014) have introduced the customer satisfaction construct in the BI context, however with different methods than the Kano model. All with the main drawback that their methods lack the ability to measure customer satisfaction levels attributed to services which are not yet

provided by BIs. As such, this study adopts the Kano model in order to measure the satisfaction/dissatisfaction levels attributed to the complete list of service offerings (42 services) which yielded from both the systematic literature review on service offerings as well as the qualitative pre-study with 8 tenants of incubator 'De Gasfabriek' (see Figure 10). The next 'Methodology' chapter (3) will be devoted to a detailed explanation of the research design of this study, the Kano model as well as an explanation of the data collection process.

3. Methodology

3.1 Research design

The main purpose of this study is to provide an answer to the question: *“Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?”*. The aim thereby is to highlight the needs and expectations of BI tenants and their associated satisfaction/dissatisfaction levels with the services offered by BIs, so that managers of BIs can broaden their understanding on this matter and adjust their offerings and/or the resource allocation (time) regarding their offerings.

In order to measure the satisfaction/dissatisfaction levels attributed to the service offerings of BIs, this study has adopted the Kano model as the primary research instrument. The justification of this action will be provided in the next sub-section in which this method will be discussed.

3.2 Method

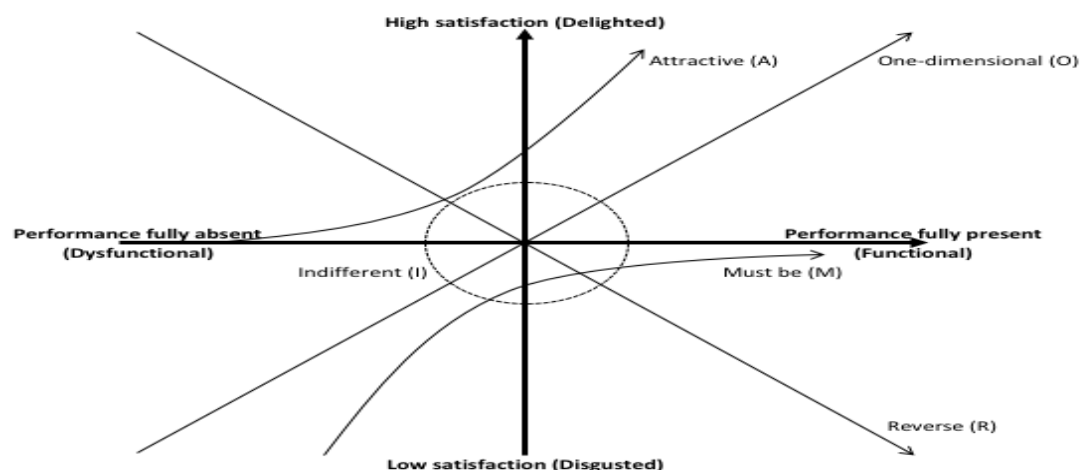
3.2.1 Kano model

This sub-section provides an explanation of the Kano model. First the mechanics of the model will be explained, followed by a description of the process and concluded by an enumeration of its advantages to underline its reliability.

3.2.1.1 Mechanics

The Kano model is a methodological pillar to measure customer satisfaction levels with product or service attributes, with an overall objective to define a relationship between them (Rashid et al., 2010). As can be seen in Figure 13, the vertical Y-axis of the model represents the level of satisfaction obtained from specific product/service attributes, ranging from high satisfaction (delight) to low satisfaction (disgusted). Whereas, the horizontal X-axis shows the degree to which expectations have been met according to the customers' performance perception. When the performance is fully absent, this is denoted as dysfunctional and when the performance is fully present, this is referred to as functional.

Figure 13. A graphical representation of the Kano model based on Rashid et al. (2010).



Moreover, the Kano model classifies product/service requirements into five types of attributes, based on how well they contribute to customer satisfaction: 1) Must-be attributes (M), 2) One-dimensional attributes (O), 3) Attractive attributes (A), 4) Indifferent attributes (I) and 5) Reverse attributes (R) (Ghorbani, Arabzad and Shahin, 2013). Figure 14 offers an explanation of the categories as well as recommendations on how to deal with product/service requirements that fall into a certain attribute category. In addition, Figure 14 also hosts a sixth category, which is not plotted in the Kano model, namely: 6) Questionable attributes (Q). This category is not plotted because it is not seen as a real attribute, since it primarily describes an interview error. How such an error can occur, is explained in a later stage, in which the process of the Kano model will be discussed.

Figure 14. Categories of attributes based on Kano, Seraku, Takahashi and Tsjui (1984) and Rashid et al. (2010).

	Product attributes:	Definition:	Recommendations:
1.	Must-be (M)	A <i>Must-be</i> attribute absence produces absolute dissatisfaction and its presence does not increase satisfaction	Continue with <i>Must-be</i> attributes
2.	One-dimensional (O)	A <i>One-dimensional</i> attribute fulfillment helps to enhance satisfaction levels and vice versa	Include a good number of <i>One-dimensional</i> attributes
3.	Attractive (A)	An <i>Attractive</i> attribute is an attribute which is not expected and leads to high levels of satisfaction, its absence will not result in dissatisfaction	Include a good number of <i>Attractive</i> attributes
4.	Indifferent (I)	An <i>Indifferent</i> attribute results in neither satisfaction nor dissatisfaction, regardless of fulfillment	Avoid <i>Indifferent</i> attributes as much as possible
5.	Reverse (R)	A <i>Reverse</i> attribute causes dissatisfaction and its absence causes satisfaction	Avoid <i>Reverse</i> attributes
(6.)	(Questionable (Q))	A <i>Questionable</i> attribute, is not really an attribute, but merely an interview error	Solve mistake in the design of the interview or leave the invalid interview out of the evaluation

3.2.1.2 Process

Before the classification into attribute categories can be made, various other steps need to be completed first. This sub-section will provide a step-by-step description of the process of the Kano model.

Step 1 is to identify the needs and expectations of the customers. The input consists of the product/service requirements which stem from explorative investigations and are to be tested on the levels of provision of satisfaction or dissatisfaction (Matzler and Hinterhuber, 1998). In the case of BIs, the services offerings represent the input. The services offered are part of the total BI assistance, which is the ‘service’ of the BI. Literature prescribes that it is important to “walk in your customer’s shoes” when formulating the requirements (Matzler and Hinterhuber, 1998). Moreover, it is important to ascertain the ‘hidden’ needs and problems of customers instead of general desires (Matzler and Hinterhuber, 1998). Hence, the previous ‘Literature Review’ chapter (2) has provided a complete list of 42 services (see Figure 10) based on a systematic literature review on service offerings and qualitative interviews with tenants of BI ‘De Gasfabriek’ which will act as the input of the Kano model.

Once the input for the product/service requirements is formulated, it is time to construct the ‘Kano-questionnaire’ (Step 2). Just as important as it was in the previous paragraph to “walk in your customer’s shoes”, it is now equally important to formulate the questions of the questionnaire according to the ‘voice of the customer’ (Griffin and Hauser, 1993). Meaning that all questions should be fully understandable for customers. Therefore, complicated technological questions should be left out in order to obtain valid and significant results later on in the process.

In the questionnaire, each product/service requirement is assigned a pair of questions (two-dimensional approach). The first question is a functional question; meaning it measures the reaction of the customer if the product/service has been or would be equipped with that specific requirement. The second question is a dysfunctional one. Here the response of the customer is measured when the product/service has not been or would not be equipped with that specific requirement. The customer can answer both of these questions a kind of 5-point Likert-scale way, ranging from: 1) like, 2) Must-be, 3) Neutral, 4) Live with and 5) Dislike (Ghorbani et al., 2013).

An example of a such a pair of questions is provided in Figure 15, which shows a tenants' reaction to the BI service: an Affordable office space. The full 'Kano-questionnaire' used in this study can be found in 'Appendix 6'.

Figure 15. A typical question formulation in the 'Kano-questionnaire'.

Functional form of the question	If the incubator provides affordable office space, how do you feel?	1) I like it that way <input type="checkbox"/> 2) It must be that way <input checked="" type="checkbox"/> 3) I am neutral <input type="checkbox"/> 4) I can live with it that way <input type="checkbox"/> 5) I dislike it that way <input type="checkbox"/>
Dysfunctional form of the question	If the incubator does not provide you with affordable office space, how do you feel?	1) I like it that way <input type="checkbox"/> 2) It must be that way <input type="checkbox"/> 3) I am neutral <input type="checkbox"/> 4) I can live with it that way <input type="checkbox"/> 5) I dislike it that way <input checked="" type="checkbox"/>

As can be seen in Figure 15, the tenant answers the functional form of the question with: 2) "it must be that way" and the dysfunctional form of the question with: 5) I dislike it that way. Hence, this tenant states that an incubator must provide affordable office space and if the incubator would not provide affordable office space, he or she would dislike that. In order to see into which attribute category the service: Affordable office space falls, all the interviews need to be classified and administered. How this works is explained in step 3.

Step 3 is the classification and administration of the interviews. For each product/service requirement the question pair yields an outcome that can be obtained from the Kano evaluation table (see Figure 16). Going back to the affordable office space example in the previous step, the tenant answered the functional form of the question with 2) "it must be that way" and the dysfunctional form of the question with: 5) I dislike it that way. As can be seen in Figure 16, the combination of the two answers produces the attribute type (M). Hence, indicating that according to this tenant, an affordable office space is a Must-be attribute.

Figure 16. The Kano evaluation table based on Matzler and Hinterhuber (1998).

Customer requirements		Dysfunctional form of the question				
		1) I like it that way	2) It must be that way	3) I am neutral	4) I can live with it that way	5) I dislike it that way
Functional form of the question	1) I like it that way	Q	A	A	A	O
	2) It must be that way	R	I	I	I	M
	3) I am neutral	R	I	I	I	M
	4) I can live with it that way	R	I	I	I	M
	5) I dislike it that way	R	R	R	R	Q

A = Attractive M = Must be O = One-dimensional
 I = Indifferent R = Reverse Q = Questionable

Furthermore, what can also be seen from the complete table of results is that 0% of answers regarding the service; 'an Affordable office space' yielded category (R) Reverse and 0% yielded category (Q) Questionable. The 'Reverse' category indicates that customers do not only not want a requirement to exist, they expect the reverse. In the case of an affordable office space, this would mean that tenants do expect and want an affordable office space at all. On the contrary, they rather want and expect the opposite. In the case of BIs, it thus makes total sense that no tenant has indicated the service: 'an Affordable office space' as a 'Reverse' attribute. Because if they wouldn't want an affordable office space (which is the most basic service provided by BIs), he or she would be in the wrong place at a BI. The 'Questionable' category is a questionable category in itself, since normally there are no answers falling into this category Matzler and Hinterhuber, 1998). If answers do yield the (Q) attribute category, this can be the result of an incorrect phrased question or question pair in the questionnaire or a misunderstanding of the question by the customer. The lower the percentage in this category, the more valid and significant are the overall results. When each product/service requirement has been assigned an attribute category, the next step is to determine the degree to which the fulfillment or non-fulfillment of such a product/service requirement would influence the level of customer satisfaction/dissatisfaction. This is done according to the customer satisfaction coefficient (CS coefficient).

Step 4 is the interpretation and evaluation of the results. The CS coefficient indicates how strongly a product/service requirement, when present, influences satisfaction, or in absence, influences dissatisfaction. As also described above, the output of the Kano model provides an overall overview of all the answers given by various types, groups and segments of customers. Therefore, the CS coefficient represents the average impact on customer satisfaction/dissatisfaction for a certain product/service requirement for all customers. However, the Kano model can also act as an ideal tool for market segmentation and thus differentiation (Berger, Blauth, Boger, Bolster, Burchill, DuMouchel, Pouliot, Richter, Rubinoff, Shen, Timko and Walden, 1993). For example, by dividing customers into different groups/segments (Chen and Chuang, 2008; Matzler and Hinterhuber, 1998).

In the light of this study, a similar segmentation approach will be employed for BI tenants of different incubators. So that besides looking at the average overall impact of certain services on satisfaction/dissatisfaction for all tenants, the impact on satisfaction/dissatisfaction of various services can also be looked at per incubator. Hence, answers might vary between tenants of different incubators and this will provide an opportunity to compare results.

This will be elaborated on in detail in the next 'Empirical findings' chapter (4). For now, however, this sub-section will continue with a description how to calculate the CS coefficient for the average impact on customer satisfaction/dissatisfaction for a certain service for all tenants of all incubators taken into consideration in by this study.

There are two types of CS coefficients. The first is the positive CS coefficient, which measures the extent of satisfaction. The second is the negative CS coefficient, which measures the extent of dissatisfaction. They both have their own formula (see Figure 19).

Figure 19. Formulas to calculate the respective CS coefficient (Kano et al., 1984).

<p>Extent of satisfaction:</p> $\frac{A + O}{A + O + M + I}$	<p>Extent of dissatisfaction:</p> $\frac{O + M}{(A + O + M + I) * (-1)}$
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In order to calculate the positive impact on satisfaction, the total number of 'Attractive' and 'One-dimensional' attributes are added up and divided by the total number of responses, excluding the reverse and questionable attributes. For the impact on dissatisfaction the

Now that the Kano model process has been elaborated on, it is time to look at the advantages of the Kano model as well as its applicability in the BI context. Note that the next 'Empirical findings' chapter (4) will follow the same steps regarding data extraction, evaluation and interpretation as explained in this sub-section.

3.2.1.3 Kano model advantages and applicability in the BI context

In short, this sub-section has provided an in-depth explanation of the Kano model; its mechanics and its process. Altogether, the Kano model showed to have great potential in understanding the degree to which product/service requirements can influence satisfaction/dissatisfaction (Matzler et al., 1996). Hence, the Kano model can provide valuable help in difficult situations such as trade-offs or resource scarcity (Matzler and Hinterhuber, 1998). Furthermore, the Kano model sheds light on the average impact on customer satisfaction for specific product/service requirements and moreover, the Kano model has the potential to process segmented data. Hence, differences between customer segments can be observed as a result of the distribution of answers regarding various attribute categories (Matzler and Hinterhuber, 1998). This has the potential to alter offerings according to various customer segments/group and hence creates a wide range of possibilities for differentiation.

The purpose of this study is to provide an answer to the question: *"Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?"*. The Kano model showed its ability to provide insights into individual needs and expectations of customers (Chen and Chuang, 2008). Moreover, it goes one step beyond methods used in other studies which have introduced the customer satisfaction construct in the BI context. Where for example the study of Abduh et al. (2007) focused around 'experienced' satisfaction, the Kano model has the ability to measure the impact on satisfaction for current service offerings, but also for potential new services which are to be added in the future. Hence, allows for ideas regarding new service offerings to be tested. Whereas the method of Abduh et al. (2007) requires the services to be provided ex ante the input data is obtained. The Kano model thus allows for future development, whereas the model used in the study of Abduh et al. (2007) can be used to test the status-quo.

Furthermore, the characteristics of the outcomes provided by the Kano model, make it an appealing research instrument for this paper. As explained in the elaboration of the Kano model process, each attribute category: 1) Must-be attributes (M), 2) One-dimensional attributes (O), 3) Attractive attributes (A), 4) Indifferent attributes (I) and 5) Reverse attributes (R)) has particular characteristics. Dependent on the category, it is possible to derive individual recommendations for action. In the case of BIs this means that the various support services (both currently offered, as well as potential offerings) can be tested by the means of the Kano model to find out which services have a proportional big influence on overall tenants' satisfaction and which services do not or have little influence on overall tenants' satisfaction.

Hence, taking into account the advantages as mentioned above, the ease of use, the mass adoption of the model in various research settings ('Appendix 5') and its applicability in both a product and service context form the foundation of reliability and therefore justifies the application of the model in this study and in the BI context. Ultimately, this could help managers of BIs in adjusting service offerings to meet the needs and expectations of the tenants. So that their respective BIs can: 1) offer their tenants assistance in order for them to be successful and self-sustaining, 2) stand out in doing so, to be competitive.

3.3 Data collection

With the 'Kano-questionnaires' in place (see 'Appendix 6'), the next step was to conduct the 'structured' interviews at BIs. Before elaborating on the complete interview process, I will first discuss the selection process. Actually, this process can be divided into two separate parts; the selection criteria for the BIs and the selection criteria for the tenants of the BIs.

3.3.1 Selection criteria BIs

3.3.1.1 De Gasfabriek

This master thesis originated as a research project for BI 'De Gasfabriek'. Since 'De Gasfabriek' only exist for just over 2 years, the goal of the project was to see where value could be added regarding the offerings to their tenants. Therefore, the first BI to be included to collect the data from is 'De Gasfabriek'. As said before 'De Gasfabriek' is a BI in Deventer in the east part of the Netherlands. Furthermore, it is a A) Mixed technology BI as described by Al-Mubarak and Busler (2011). A) Mixed technology BIs focus on several technologies at the same time. A pure D) Technology BI would be an incubator solely focusing on new technologies to be commercialized. Whereas in 'De Gasfabriek' technology plays an important role, but also entrepreneurship is promoted, so as the formulation of new and innovative business models. This can be done either by adopting a new technology, creating a new technology, of using an existent technology in a different and new-to-the-world way.

'De Gasfabriek' currently has the following repertoire of offerings: Business club, Events, Entrepreneurial jobs, Innovation lab, Kiks ('Kansrijke innovatie kringen'), Pop-up university and Ventures. Besides all these offers, 'De Gasfabriek' also rents out office spaces. For commercial purposes but also for their 'core'. This core represents the real incubator and consists of promising and backed companies which are screened before entering. The main vision of 'De Gasfabriek' to foster development of the start-ups which form the core is not to provide them with endless capital, but instead offer them distribution by linking them with a big corporate. Currently 10 start-ups form this core group.

In order to provide for a more representative assessment of the satisfaction levels attributed to the service offerings of BIs, the sample had to be extended beyond the respondents of 'De Gasfabriek' and another BI had to be added to the sample. In order to respect the scope of the research to the best extent, the next BI needed to have similar characteristics as 'De Gasfabriek'. Meaning; similar typology, similar age, minimum of 10 start-ups etc. Since, comparing an apple and a pear would not yield results which are generalizable. Hence, the second BI used in this thesis to obtain data from is the Ace Incubator / Startup Village in Amsterdam.

3.3.1.2 Ace Incubator / Startup Village

Ace (Amsterdam center for entrepreneurship) Incubator is also a A) Mixed technology BI as described by Al-Mubarak and Busler (2011). It is as the name implies situated in Amsterdam, in the west part of the Netherlands. Similar to: 'De Gasfabriek', Ace Incubator also rents out offices in their specially constructed 'Startup Village' on a commercial basis to companies which are not part of the incubator program. Moreover, similar to: 'De Gasfabriek' these companies are part of the same ecosystem and hence both core and non-core companies have offices at the 'Startup Village'. To the start-ups who are part of the core, Ace Incubators offers training, support, coaching and access to an extensive network of mentors, entrepreneurs and business professionals. Startup Village hosts over 26 companies, of which more than 10 are part of the incubator program. Finally, Ace Incubator / Startup Village is operating from the 12th of June 2016. Meaning they are just

like 'De Gasfabriek' very early stage. Therefore, due to the similarities this incubator was chosen as another source to extract the data from.

3.3.2 Selection criteria tenants

The selection criteria of the tenants were straightforward. The tenants had to be part of the core group of both incubators. Meaning they were enjoying the support the incubator had to offer. It did not make sense to interview tenants of the commercial 'for-rent' areas, since those companies most often enjoy the benefits of the eco-system, but are not actively managed or supported. Hence, the first criteria was that of the incubator membership so to say. Furthermore, only founders and co-founders were taking in consideration. Employees might have their opinions about what works and what is beneficial regarding service offerings, but the (co-)founders themselves have the most responsibility of the start-up and oversee decision-making (Snowden and Boone, 2007). In total this yielded 12 responses in BI 'De Gasfabriek'. Moreover, this immediately formed the final criteria of the tenant's selection process. For the ease of comparison and to generate more robust findings, 12 responses were also required from Ace Incubator / Startup Village. Hence, resulting in a total of 24 responses.

3.3.3 Interview process

For the interview process a face-to-face physical approach was chosen in both incubators. According to Matzler et al. (1996), conducting the interviews orally is the most suitable method for the Kano model. Hence, the 'Kano-questionnaire' was printed and distributed to the tenants. As can be seen in 'Appendix 6' the 'Kano-questionnaire' contains 2 parts. The first part consists primarily of questions to unravel the characteristics of the tenants, whereas the second part of the questionnaire hosts the typical Kano questions about specific incubator services with their associated answer possibilities: 1) Like, 2) Must-be, 3) Neutral, 4) Live with and 5) Dislike. All tenants received exactly the same 'Kano-questionnaire' with questions in the same order. This to have the smallest change of failure and to achieve the highest possible response rate. As said, the majority of interviews were conducted face-to-face. This provided me with the opportunity to explain the goal and purpose of the questionnaire as well as answer any questions the tenants had, so they understood the formulation and the intention of the questions. This with the overall goal in mind to obtain accurate and consistent data.

In total 24 responses were obtained. 12 from BI 'De Gasfabriek' as well as 12 from Ace Incubator / Startup Village. Figure 22 shows the characteristics of all 24 respondents.

Figure 22. Characteristics of all responses.

No:	Incubator:	Company name:	Industry:	Team size company:	Firm age:	Incubation duration:	Role/function:	Entrepreneurial experience:
1	De Gasfabriek	CoolDutch	Education	1	6 years	2 years	Founder	6 years
2	De Gasfabriek	The Code crew	IT	3	2 years	2 years	Founder	4 years
3	De Gasfabriek	Coiversable	IT	3	1 year	1 year	Co-Founder	1,5 years
4	De Gasfabriek	Nomoni	Technology	3	0,5 year	0,5 year	Co-Founder	0,5 year
5	De Gasfabriek	Coiversable	IT	3	1 year	1 year	Co-Founder	6 years
6	De Gasfabriek	Tijdlab	Culture	4	3 years	2 years	Co-Founder	4 years
7	De Gasfabriek	Lokaalloyaal	Technology	2	1 year	1 year	Founder	10 years
8	De Gasfabriek	Brandeniers	Branding/Marketing	6	1 year	1 year	Co-Founder	1 year
9	De Gasfabriek	Krabbel Communicatie & Tekst	Branding/Marketing	1	3 years	1 year	Founder	3 years
10	De Gasfabriek	De Procescartograaf	Communication	2	4 years	1 year	Co-Founder	2,5 years
11	De Gasfabriek	Brandeniers	Branding/Marketing	6	1 year	1 year	Co-Founder	1 year
12	De Gasfabriek	Previsual	3D Technology	3	2 years	1 year	Co-Founder	2 years
13	ACE / Startup Village	Interclass B.V.	Education	8	1,5 years	0,75 year	Co-Founder	2 years
14	ACE / Startup Village	Interclass B.V.	Education	8	1,5 years	0,75 year	Co-Founder	3 years
15	ACE / Startup Village	ConnActive Care	Healthcare	2	1 year	1 year	Founder	5 years
16	ACE / Startup Village	241 Software Solutions	Education	5	1 year	1 year	Founder	1 year
17	ACE / Startup Village	Holofil	3D Technology	4	1 year	1 year	Co-Founder	2 years
18	ACE / Startup Village	My Reputation Lab	Online services	7	2 years	1 year	Co-Founder	1 year
19	ACE / Startup Village	My Reputation Lab	Online services	7	2 years	1 year	Co-Founder	2 years
20	ACE / Startup Village	Holofil	3D Technology	4	1 year	1 year	Co-Founder	3 years
21	ACE / Startup Village	Umance	Medical IT	4	0,25 year	2 years	Co-founder	0,25 year
22	ACE / Startup Village	Air Innovation	AI/Aviation	5	2 years	2 years	Co-Founder	2 years
23	ACE / Startup Village	Proof of the sum	Architecture/Psychology	8	1,5 years	1,5 year	Founder	5 years
24	ACE / Startup Village	Metrica Sports	IT/Data	10	3 years	2 years	Co-Founder	3 years

Out of the 24 interviews, 20 were conducted on a face-to-face basis, while 4 interviews were sent in an Excel format by email. In these 4 cases, the tenants did not have the time to fill in the questionnaires right away. However, in all 4 cases an explanation of the questionnaire was provided in person in the same matter as the interviews which were conducted personally. Again, to ensure that the tenants fully understood the formulation and intention of the questionnaire so that accurate and consistent data could be obtained. The face-to-face interviews took on average 20-25 minutes per interview to conduct, due to the high number of question-pairs resulting from the complete list of services (see Figure 10). When the tenants had finished the questionnaire, they had the time to reflect on it and to provide additional information which they deemed was important to provide next to the answers of the 'Kano-questionnaire'. This additional information will be provided in the next 'Empirical findings' chapter (4). The total process of gathering the primary data took about 3 weeks and consisted of 3 visits per incubator. The extraction, evaluation and interpretation of the data took place after concluding all interviews. In other words, when all data was collected. The next 'Empirical findings' chapter will offer a similar step-by-step approach as presented in the previous 'Method' sub-section (3.2) to evaluate and interpret the data.

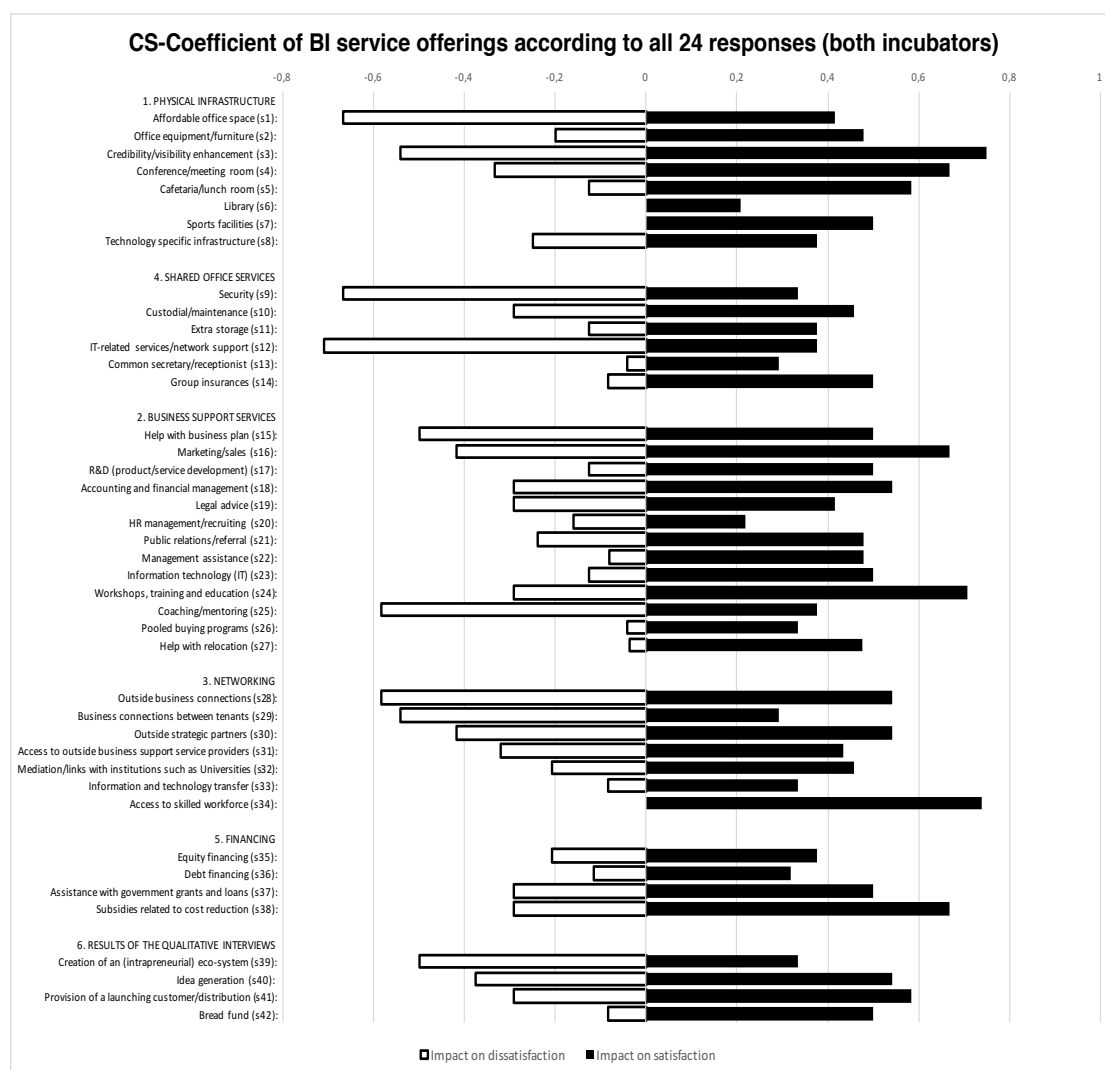
4. Empirical findings

As said before, this section will extract, evaluate and interpret the data obtained from the 24 responses from 2 different incubators according to the same steps as discussed in the 'Method' sub-section (3.2) of the previous 'Methodology' chapter (3). The structure of this section is as follows: first, the overall findings will be presented. Here, all 24 responses from both incubators are taken into account and hence this section will provide the necessary information to answer the focal research question of this thesis: *"Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?"*. Second, the data of both incubators will be compared to each other and to the overall results, to see whether there are any major differences. In this part, the second sub-question: *"To what extent differ the identified services in terms of the impact on customer satisfaction and dissatisfaction levels for tenants of different BIs?"* will be discussed. The third part of this sub-section will be dedicated to what Matzler and Hinterhuber (1998) call 'customer oriented variables'. Here, the segmentation possibilities before the application of the Kano model, as underlined by Berger et al. (1993), will be elaborated on. The data will be grouped according to the tenant specific variable: 'Entrepreneurial experience'.

4.1 Overall findings

After having conducted all 24 interviews and the results were in, it was time to administer them. Hence, at first a complete evaluation table of all 24 results was constructed (see 'Appendix 7'). Here, all the yielded attribute categories for each question pair can be seen for all individual tenants. Next, all attribute categories were tallied in the preliminary table of results for the overall findings and the Kano categories were assigned to the service offerings (see 'Appendix 8'). Then, the distribution of all answers was calculated and expressed in percentages and moreover, the CS coefficients were calculated. In 'Appendix 9' the complete table of results can be seen, including the distribution of answers in percentages for all tenants. Figure 23 shows a simplified visual representation of all the overall outcomes. Furthermore, a complete list of the overall findings, including the Kano attribute category assigned to a specific service as well as the CS coefficients for satisfaction and dissatisfaction of all 42 services is provided in the 'Appendix 10'.

Figure 23. A simplified visual representation of the overall findings.



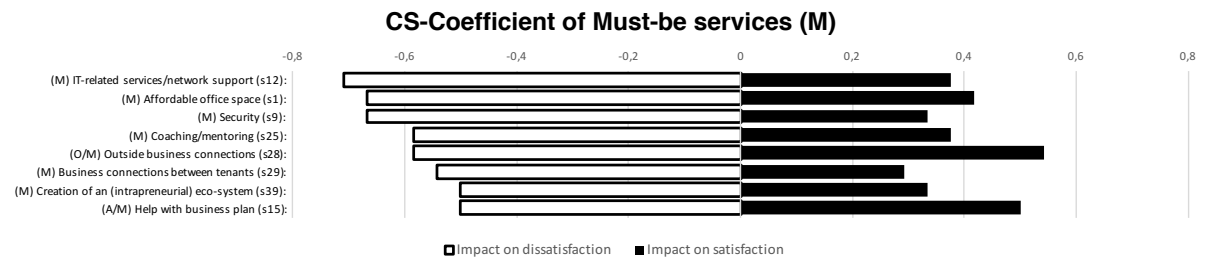
4.1.1 Must-be services

The overall findings (see 'Appendix 10') show that based on all 24 responses, 8 out of 42 services yield the Kano Category 'Must-be'. Out of which 2 of these services are assigned to more than 1 attribute category. The 'pure' 6 must-be services according to all tenants taking part in this questionnaire are: an Affordable office space (s1), Security (s9), IT-related services/network support (s12), Coaching/mentoring (s25), Business connections between tenants (s29) and the Creation of an intrapreneurial ecosystem. The 2 services which are assigned another attribute category besides the 'Must-be' attribute category are: Help with the business plan (s15) and Outside business connections (s28).

As explained in sub-section 3.2, Must-be attributes do not yield high satisfaction levels, but in absence they rather have a big influence on dissatisfaction, which is ultimately stronger than any effect on satisfaction (Hill, 1986). This is also illustrated by the relatively high impact on dissatisfaction of the 'pure' 6 must-be services compared to their relatively low impact on satisfaction, which is also in line with the theory. Moreover, the 'pure' 6 must-be services all have a much larger difference between the impact on dissatisfaction compared to the impact on satisfaction compared to the 2 must-be services which fall under more than 1 attribute

category. Thereby underlining that the 6 ‘pure’ must-be services weigh heavier than the other 2 must-be services. Resort to Figure 24 for a simplified visual representation of the CS coefficients of the 8 must-be services.

Figure 24. A simplified visual representation of CS coefficients of the Must-be services (M).



What can be seen in Figure 24 is that the three services with the highest CS coefficients for dissatisfaction out of the must-be services are: (s12) IT-related services/network support (**-0,71), (s1) an Affordable office space (**-0,67) and (s9) Security (**-0,67). These three pure ‘Must-be’ services also have the highest CS coefficients for dissatisfaction out of all 42, which is in line with the theory (see ‘Appendix 10’).

Overall these results indicate that at least the 6 ‘pure’ must-be services were expected to be offered by BIs according to the tenants of this sample. Out of which: an Affordable office space (s1), Security (s9) and IT-related services/network support (s12) have the highest impact on dissatisfaction in their absence. Hence, it is the task of BIs to make sure these basic services are included in their service-offering.

What is worth pointing out here is that the three services with the highest CS coefficients for dissatisfaction are all in line with what can be expected. First, an Affordable office space (s1) is somewhat of the core of a physical incubator, hence finding this service in a different attribute category would be odd. Also, the study of Abduh et al. (2007) which was part of the systematic literature review found an affordable office space to be amongst the most important services with a high impact on dissatisfaction if not provided.

Next, Security (s9) is also a necessity that can be expected in an office building where proprietary information is stalled and where people are working. This service was not accounted for by Abduh et al. (2007), however, as already indicated 30 years ago by Smilor (1987), security is vital and something that should not be ignored.

Finally, finding the IT-related services/network support (s12) service in the ‘Must-be’ category also does not come as a surprise, since in the current era we are more than ever dependent on having a data connection (internet). And moreover, a majority of the tenants forming the overall sample of this thesis is active in an industry related to IT.

What does come as a surprise, is perhaps the fact that the overall findings only yielded 6 ‘pure’ must-be services out of 42 services and hence business support services such as Marketing/sales or services related to Financing are not considered to be a basic requirement by the tenants of this sample.

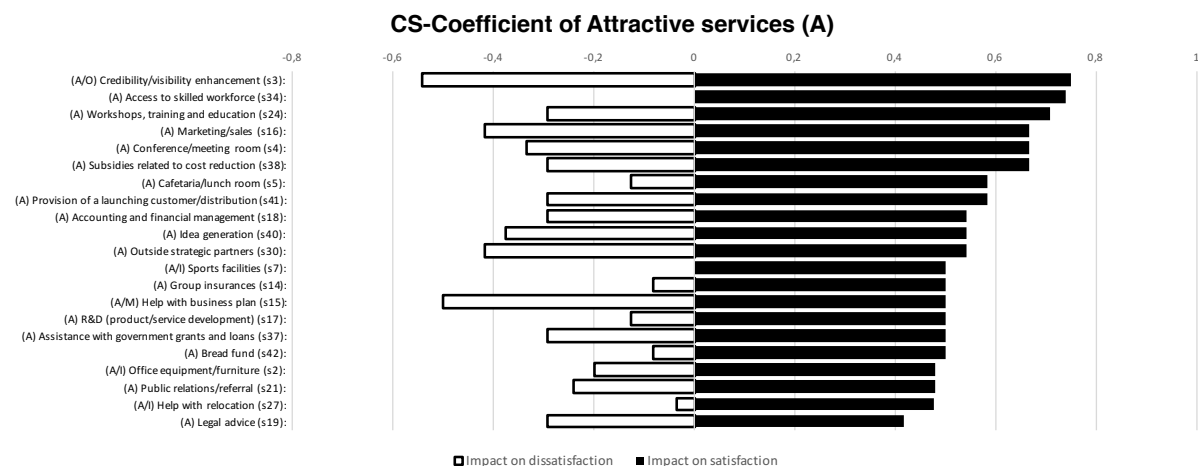
4.1.2 Attractive services

Furthermore, 21 out of the total 42 services are assigned the ‘Attractive’ attribute category. Out of which 16 are ‘pure’ attractive services and 5 services are assigned another attribute category besides the attractive attribute category. The 16 ‘pure’ attractive services are: Conference/meeting room (s4), Cafeteria/lunch room (s5), Group insurances (s14), Marketing/sales (s16), R&D (product/service development) (s17), Accounting and financial

management (s18), Legal advice (s19), Public relations/referral (s21), Workshops, training and education (s24), Outside strategic partners (s30), Access to skilled workforce (s34), Assistance with government grants and loans (s37), Subsidies related to cost reduction (s38), Idea generation (s40), Provision of a launching customer/distribution (s41) and Bread fund (s42). The 5 services which are assigned another attribute category besides the 'Attractive' attribute category are: Office equipment/furniture (s2), Credibility/visibility enhancement (s3), Sports facilities (s7), Help with business plan (s15) and Help with relocation (s27).

Similar as in the case of the 'Must-be' attribute category both the 16 'pure' attractive services as well as the 5 services which are assigned another attribute category besides the attractive attribute category can have a high impact on satisfaction, however the 16 'pure' attractive attributes are characterized by a larger difference between the impact on satisfaction compared to the impact on dissatisfaction (see Figure 23). This is because a 'pure' attractive attribute is not expected and hence can only lead to satisfaction. This in contrast to 5 'combined' attractive services in which the levels of satisfaction vs. dissatisfaction are closer aligned in the case of A/O and A/M attributes or the impact on satisfaction is low, irrelevant of the impact on dissatisfaction (A/I). Figure 25 offers a simplified visual representation of the CS coefficients of all of the 21 attractive services.

Figure 25. A simplified visual representation of CS coefficients of the Attractive services (A).



The three services with the highest impact on satisfaction out of the total amount of 42 services, consist of 2 'pure' attractive services ((s34) Access to skilled workforce (**0,74) and (s24) Workshops, training and education (**0,71)) and 1 service which is assigned to another attribute category besides the attractive attribute category ((s3) Credibility/visibility enhancement (**0,75)). The latter has the highest effect on satisfaction and is also attributed to the 'One-dimensional' attribute category besides the 'Attractive category'. The 'One-dimensional' attribute category will be discussed later in this sub-section.

Overall, these findings indicate that the 16 'pure' attractive services as identified by this study were not expected by the tenants to be offered by a BI. These are the additional services, which can have a big impact on the satisfaction levels of tenants and moreover, have the ability to distinguish a BI from other BIs when such services are added to the service portfolio.

What is worth pointing out here is that, as said before, these 16 'pure' attractive services were not considered as basic requirements by the tenants of the sample and hence, a big share out of the 42 services can be used to create a positive impact on satisfaction and therefore can act as a means to obtain differentiation.

4.1.3 Indifferent services

17 out of 42 services mark the 'Indifferent' attribute category. Of which 14 are 'pure' indifferent services: Library (s6), Technology specific infrastructure (s8), Custodial/maintenance (s10), Extra storage (s11), Common secretary/receptionist (s13), HR management/recruiting (s20), Management assistance (s22), Information technology (IT) (s23), Pooled buying programs (s26), Access to outside business support service providers (s31), Mediation/links with institutions such as Universities (s32), Information and technology transfer (s33), Equity financing (s35) and Debt financing (s36) show to have no impact on satisfaction nor on dissatisfaction. The remaining 3 services, which are also attributed to another attribute category are: Office equipment/furniture (s2), Sports facilities (s7) and Help with relocation (s27). These 3 services have all been assigned the 'Attractive' attribute category as well, thereby marking that their effect on satisfaction somewhat higher than the effect on satisfaction of the 14 'pure' indifferent services. Moreover, the 3 'combined' indifferent services have a larger difference between the impact on satisfaction compared to the impact on dissatisfaction compared to the 14 'pure' indifferent services.

However, none of the 17 services in this category has a substantial high impact on satisfaction nor dissatisfaction. According to the theory, BIs should shift their attention from the 14 'pure' indifferent services as much as possible towards the 'Must-be', 'Attractive' or 'One-dimensional' services (see Figure 14).

Although none of these 17 services has a substantial high impact on satisfaction or dissatisfaction, it is worth discussing counter-intuitive findings.

As expected, and as amplified in the qualitative interviews with the tenants of 'De Gasfabriek', both Equity financing (s35) and Debt financing (s36) are not perceived as services with a major impact on satisfaction or dissatisfaction. Tenants in this sample rather see the attractive services: Assistance with government grants and loans (s37), Subsidies related to cost reduction (s38) and Bread fund (s42) as their way of financing and to survive the hard initial start-up phase instead of giving away equity (Equity financing (s35)) or committing themselves to a loan (Debt financing (s36)).

A common secretary/receptionist (s13), is not deemed as important by the tenants of this sample. The opposite could be expected since it is important to guide business contacts to the correct area of the incubator if they have an appointment. However, this finding can thus perhaps be the result of companies which are not yet in the stage to welcome business contacts in their office or the tenants do not see the extra value in this service in general.

Furthermore, the subscription of the 'Indifferent' attribute category to the service: Mediation/links with institutions such as Universities (s32) was surprising, since institutions such as Universities can act as a great source of the latest knowledge and moreover, to young and bright individuals (students) (Mian, 1996). This in turn forms the introduction to the biggest contradicting finding within the overall findings. First, the Mediation/links with institutions such as Universities (s32) is regarded by the tenants of this sample as an indifferent service, and hence they do not seem to value the connection to young and bright students. Moreover, HR management/recruiting (s20) is also seen as an indifferent service. Whereas the service with the 2nd biggest impact on satisfaction levels is the attractive service: (s34) Access to skilled workforce (**0,74). Thereby indicating that the tenants provide answers which lie far apart from each other concerning the same matter. Because on the one hand it seems that they want to be connected with talent and on the other hand they indicate the opposite.

4.1.4 One-dimensional services

The overall findings do not include 1 'pure' one-dimensional service. However, as indicated above, the service with the highest impact on satisfaction ((s3) Credibility/visibility enhancement (**0,75)) falls under both the 'One-dimensional' as well as the 'Attractive' attribute category. Moreover, the Outside business connections (s28) service falls under the 'One-dimensional' as well as the 'Must-be' attribute. As can be seen in 'Appendix 10', the difference between the impact on satisfaction versus the impact on dissatisfaction is a lot smaller for these 2 services compared to the 2 'pure' attractive services which together make up for the three highest CS coefficients for the impact on satisfaction. Or than 'pure' must-be services. Hence, this is in line with the theory. As the theory prescribes that the fulfilment of one-dimensional attributes helps to enhance satisfaction, whereas the non-fulfilment leads to the opposite (see Figure 14). Hence, this is an explanation for the relative high CS coefficient for dissatisfaction of both of these 'combined' services. And moreover, due to this rather small difference between the negative and the positive CS coefficient for both of these services, they can be seen as more of one-dimensional services than an attractive service or a must-be service.

4.1.5 Reverse and Questionable services

The overall findings did not yield any 'Reverse' or 'Questionable' services. Whereas some tenants did indicate certain services to be 'Reverse' in their eyes, no single answer pair yielded the 'Questionable' attribute category. The latter can be viewed as something positive. Hence, it means that there were no invalid interviews and most likely also no mistakes in the design of the interview. The service: Sports facilities (s7) received the most counts (4) for the 'Reverse' attribute category (see 'Appendix 8'). Apparently, the tenants of this sample do not like sports that much, or they do not think that sports and work should be combined.

4.1.6 Average impact of services

Overall, the average impact of services on satisfaction (0,47) is higher than the average impact on dissatisfaction (-0,30) (see Figure 26). This finding indicates that, according to all 24 tenants which make up this overall sample, services rather influence satisfaction than dissatisfaction. This is also underlined by the high amount of 'pure' attractive services (16), which mainly influence satisfaction, compared to the amount of 'pure' must-be services (6), which primarily affect dissatisfaction.

Figure 26. The average CS coefficients for the impact on satisfaction/dissatisfaction for the overall findings.

Service offering category:	Overall (24)	
	Average impact on satisfaction:	Average impact on dissatisfaction:
1. PHYSICAL INFRASTRUCTURE	**0,50	-0,27
4. SHARED OFFICE SERVICES	0,39	** -0,32
2. BUSINESS SUPPORT SERVICES	0,48	-0,25
3. NETWORKING	0,48	-0,31
5. FINANCING	0,47	-0,23
6. RESULTS OF THE QUALITATIVE INTERVIEWS	0,49	-0,31
OVERALL	0,47	-0,30

** = Highest difference from average CS coefficients overall

Also, the service categories with the highest difference from the average CS coefficients are indicated in Figure 26. Although the differences are rather low, they do show that service category 1. Physical infrastructure has a higher average impact on satisfaction compared to the overall average impact on satisfaction, whereas services category 4. Shared offices services has a higher average impact on dissatisfaction compared to the overall average impact on dissatisfaction. Hence, one could thus conclude that the 24 tenants that make up this sample were positively surprised by the services that make up service category 1. Physical infrastructure. Similarly, they also pointed out to be extra dissatisfied when the services falling in services category 4. Shared offices services, would not be offered by a BI.

Coming back to the study of Abduh et al. (2007), they found that tenants were generally more satisfied with facility related services than the counselling and business networking assistances services. Although categorization and methods differ from this study, the results based on the sample of 24 respondents indicate the opposite.

4.2 Incubator specific findings

The BIs taken into account by this thesis both fall under category A) mixed technology, as described by Al-Mubarak and Busler (2011). This was chosen deliberately in order to make a more profound statement regarding overall services, taken into account the generalizability matters. Hence, having a larger sample size would contribute beneficially. Nevertheless, a second sub-question (*"To what extent differ the identified services in terms of the impact on customer satisfaction and dissatisfaction levels for tenants of different BIs?"*) was constructed by this thesis. This was done because the approach and way of working differed between the two BIs. Hence, although falling under the same category this sub-section aims to find out whether there were any significant differences between the two BIs. This sub-section will dive deeper into this matter by providing a comparison between both 'De Gasfabriek', 'Ace Incubator / Startup Village' and the overall findings of the previous sub-section.

'Appendix 13' offers an overview of the yielded Kano attributes categories as well as the impact of all of the 42 services on satisfaction and dissatisfaction across all incubators ('De Gasfabriek', 'Ace Incubator / Startup Village', as well as the overall results (all 24 responses)). Again, the means to arrive there, are the same as explained in the previous sub-section. Thus, the complete evaluation table in 'Appendix 7' was used a starting point. Then, all yielded attribute categories per incubator were tallied and counted and as a result, two independent complete tables of results were constructed. One for 'De Gasfabriek' (see 'Appendix 11') and one for Ace Incubator / Startup Village' (see 'Appendix 12'). The attribute categories and impact values on satisfaction/dissatisfaction were then extracted and placed in 'Appendix 13'.

For the ease of understanding and interpretation, Figure 27 and Figure 28 were constructed based on 'Appendix 13'. In Figure 27, the services which yielded the same attribute categories across both 'De Gasfabriek' and 'Ace Incubator / Startup Village' can be seen. Whereas in Figure 28, the allocation regarding the attribute categories across all incubators is displayed.

Figure 27. Similarities of yielded service categories across all incubators.

BI service offerings:	De Gasfabriek (12)	ACE/Startup Village (12)	Overall (24)
	Attribute category:	Attribute category:	Attribute category:
1. PHYSICAL INFRASTRUCTURE			
Conference/meeting room (s4):	A	A	A
Library (s6):	I	I	I
Technology specific infrastructure (s8):	I	I	I
4. SHARED OFFICE SERVICES			
Extra storage (s11):	I	I	I
IT-related services/network support (s12):	M	M	M
2. BUSINESS SUPPORT SERVICES			
HR management/recruiting (s20):	I	I	I
Workshops, training and education (s24):	A	A	A
3. NETWORKING			
Business connections between tenants (s29):	M	M	M
Access to outside business support service providers (s31):	I	I	I
Mediation/links with institutions such as Universities (s32):	I	I	I
Information and technology transfer (s33):	I	I	I
Access to skilled workforce (s34):	A	A	A
5. FINANCING			
Equity financing (s35):	I	I	I
Subsidies related to cost reduction (s38):	A	A	A

A = Attractive
I = Indifferent

M = Must be
R = Reverse

O = One-dimensional
Q = Questionable

In total 14 services yielded the same Kano attribute across all incubators (Figure 27). Hence, indicating that the perceptions, preferences and opinions of the tenants of both incubators regarding these 14 services were in line.

Figure 28. Allocation of Kano attribute categories across all incubators.

Attribute category:	De Gasfabriek (12)	ACE/Startup Village (12)	Overall (24)
M (pure)	7	3	6
A (pure)	19	11	16
I (pure)	12	20	14
O (pure)	1	2	0
R (pure)	0	0	0
Q (pure)	0	0	0
Combined	3	6	6
Total:	42	42	42

Although the tenants across both incubators had similar opinions on 14 of the 42 services, there were also a lot of dissimilarities. In fact, 28 out of 42 services yielded a different attribute category across both incubators. Moreover, the allocation of the attribute categories differed substantially between both incubators. What can be seen from Figure 28 is that the tenants of 'De Gasfabriek' expected the highest number of services to be offered by the BI (7 'pure' must-be services). This number is more than twice as high than what was expected by the tenants of 'Ace Incubator / Startup Village' (3 'pure' must-be services), and also higher than the overall findings (6 'pure' must-be services). Furthermore, 19 services are deemed as 'Attractive' by the tenants of 'De Gasfabriek', which is again the highest number across both incubators and also compared to the overall findings. Thereby indicating that out of the list of

42 services which yielded from the systematic literature review of this thesis (see Figure 10), almost half of the services were not expected by the tenants of 'De Gasfabriek' and hence offering these services could have a positive impact on satisfaction. The tenants of 'Ace Incubator / Startup Village' in turn assigned the 'Indifferent' category to 20 services, which is the highest amount across both incubators and also compared to the overall findings. Hence, according to the tenants of 'Ace Incubator / Startup Village' 20 services do not impact satisfaction or dissatisfaction and hence according to the recommendations in Figure 14, these 20 services should be avoided. The amount of 'One-dimensional' services was almost similar across both incubators and also compared to the overall findings. The so-called 'combined' attribute category, where a service is assigned more than 1 Kano attribute occurred only 3 times in 'De Gasfabriek' compared to 6 times in 'Ace Incubator / Startup Village' and 6 times in the overall findings. This could indicate that the ideas and opinions of the tenants within 'De Gasfabriek' are more in line with each other compared to the tenants within 'Ace Incubator / Startup Village'. Moreover, the resulting 6 'combined' services for the overall findings can be attributed to the differences between the opinions of the tenants of 'De Gasfabriek' compared to the tenants of 'Ace Incubator / Startup Village'.

All in all, these variations in preferences expressed by the tenants can have several explanations. The differences between the yielded attribute categories for 'De Gasfabriek' and 'Ace Incubator / Startup Village' can be due to an overall difference in approach of the incubators. For example, the Creation of an (intrapreneurial) ecosystem (s39) is a 'Must-be' service according to the tenants of 'De Gasfabriek'. However, not indicated as such by the tenants of 'Ace Incubator / Startup Village'. This can be due to the fact that the strategy of 'De Gasfabriek' is to boost intrapreneurship within the incubator. So that the entrepreneurs of the start-ups within 'De Gasfabriek' collaborate, to achieve synergy and to stimulate new innovation. Different types or characteristics of tenants (start-ups) can be another explanation. For example, the start-ups within 'De Gasfabriek' are more early stage than the start-ups in 'Ace Incubator / Startup Village'. Hence, the service HR management/recruiting (s20) leads to higher levels of dissatisfaction according to the tenants of 'Ace Incubator / Startup Village' than the tenants of 'De Gasfabriek', because they could be at the stage where they have to hire more people. These differences in characteristics are what Matzler and Hinterhuber (1998) refer to as: 'customer oriented variables'. This will be discussed in the next sub-section (4.3) in which results will be grouped according to the variable: 'Entrepreneurial experience'.

In order to give answer to the second sub-question of this thesis: "*To what extent differ the identified services in terms of the impact on customer satisfaction and dissatisfaction levels for tenants of different BIs?*", Figure 29 was constructed. Here, the differences in CS coefficients (both negative and positive) for both incubators are displayed as well as the absolute difference. The values representing the highest difference in CS coefficients (both positive and negative) are in bold and marked in Figure 29. These six services will be highlighted in more detail in the remainder of this analysis on incubator specific findings.

Figure 29. Differences in CS coefficients of services across both 'De Gasfabriek' and 'Ace Incubator / Startup Village'.

BI service offerings:	De Gasfabriek (12)		ACE/Startup Village (12)		Absolute Difference[]	
	△ Satisfaction:	△ Dissatisfaction:	△ Satisfaction:	△ Dissatisfaction:	Satisfaction:	Dissatisfaction:
1. PHYSICAL INFRASTRUCTURE						
Affordable office space (s1):	-0,33	-0,17	0,33	0,17	0,33	-0,17
Office equipment/furniture (s2):	-0,05	0,10	0,05	-0,10	0,05	-0,10
Credibility/visibility enhancement (s3):	0,00	0,25	0,00	-0,25	0,00	-0,25
Conference/meeting room (s4):	0,00	0,00	0,00	0,00	0,00	0,00
Cafeteria/lunch room (s5):	-0,17	-0,09	0,17	0,09	0,17	-0,09
Library (s6):	-0,08	0,00	0,08	0,00	0,08	0,00
Sports facilities (s7):	-0,20	0,00	0,20	0,00	0,20	0,00
Technology specific infrastructure (s8):	0,25	-0,16	-0,25	0,16	0,25	-0,16
4. SHARED OFFICE SERVICES						
Security (s9):	0,33	0,18	-0,33	-0,18	0,33	-0,18
Custodial/maintenance (s10):	-0,08	0,08	0,08	-0,08	0,08	-0,08
Extra storage (s11):	-0,25	-0,09	0,25	0,09	0,25	-0,09
IT-related services/network support (s12):	0,08	-0,08	-0,08	0,08	0,08	-0,08
Common secretary/receptionist (s13):	*0,58	-0,08	-0,58	0,08	**0,58	-0,08
Group insurances (s14):	*0,50	0,00	-0,50	0,00	**0,50	0,00
2. BUSINESS SUPPORT SERVICES						
Help with business plan (s15):	-0,17	0,00	0,17	0,00	0,17	0,00
Marketing/sales (s16):	0,00	0,17	0,00	-0,17	0,00	-0,17
R&D (product/service development) (s17):	0,00	0,25	0,00	-0,25	0,00	-0,25
Accounting and financial management (s18):	-0,08	-0,08	0,08	0,08	0,08	-0,08
Legal advice (s19):	0,17	0,08	-0,17	-0,08	0,17	-0,08
HR management/recruiting (s20):	0,11	0,33	-0,11	*-0,33	0,11	**0,33
Public relations/referral (s21):	0,30	0,02	-0,30	-0,02	0,30	-0,02
Management assistance (s22):	0,13	0,17	-0,13	-0,17	0,13	-0,17
Information technology (IT) (s23):	0,00	0,09	0,00	-0,09	0,00	-0,09
Workshops, training and education (s24):	-0,08	-0,08	0,08	0,08	0,08	-0,08
Coaching/mentoring (s25):	-0,42	0,33	0,42	*-0,33	0,42	**0,33
Pooled buying programs (s26):	0,33	-0,08	-0,33	0,08	0,33	-0,08
Help with relocation (s27):	0,14	0,08	-0,14	-0,08	0,14	-0,08
3. NETWORKING						
Outside business connections (s28):	-0,25	-0,17	0,25	0,17	0,25	-0,17
Business connections between tenants (s29):	-0,08	0,08	0,08	-0,08	0,08	-0,08
Outside strategic partners (s30):	-0,25	0,00	0,25	0,00	0,25	0,00
Access to outside business support service providers (s31):	-0,14	0,19	0,14	-0,19	0,14	-0,19
Mediation/links with institutions such as Universities (s32):	-0,08	0,08	0,08	-0,08	0,08	-0,08
Information and technology transfer (s33):	0,33	0,00	-0,33	0,00	0,33	0,00
Access to skilled workforce (s34):	0,15	0,00	-0,15	0,00	0,15	0,00
5. FINANCING						
Equity financing (s35):	0,42	-0,08	-0,42	0,08	0,42	-0,08
Debt financing (s36):	*0,52	0,10	-0,52	-0,10	**0,52	-0,10
Assistance with government grants and loans (s37):	0,17	0,25	-0,17	-0,25	0,17	-0,25
Subsidies related to cost reduction (s38):	0,00	0,08	0,00	-0,08	0,00	-0,08
6. RESULTS OF THE QUALITATIVE INTERVIEWS						
Creation of an (intrapreneurial) eco-system (s39):	0,00	*-0,66	0,00	0,66	0,00	**0,66
Idea generation (s40):	0,25	-0,09	-0,25	0,09	0,25	-0,09
Provision of a launching customer/distribution (s41):	0,33	-0,25	-0,33	0,25	0,33	-0,25
Bread fund (s42):	0,33	-0,17	-0,33	0,17	0,33	-0,17

* = Highest three differences in CS coefficients per incubator

** = Highest three absolute CS coefficient differences

The six services with the biggest difference in CS coefficients (both positive and negative) and hence the biggest difference in terms of impact on satisfaction/dissatisfaction are: Common secretary/receptionist (s13), Group insurances (s14), HR management/recruiting (s20), Coaching/mentoring (s25), Debt financing (s36) and Creation of an (intrapreneurial) ecosystem (s39).

First the services with the highest difference for the impact on satisfaction will be discussed. The service with the highest value in this respect is: (s13) Common secretary/receptionist (absolute difference in CS = **0,58). What can be seen from Figure 29 is that this service has a much higher impact on satisfaction according to the tenants of the 'De Gasfabriek' compared to the tenants of 'Ace Incubator / Startup Village'. Meaning that the tenants of 'De

Gasfabriek' would be much more positively surprised if there would be a common secretary/receptionist (*0,58), than the tenants of 'Ace Incubator / Startup Village' (*-0,58). An explanation for this could for example be, that a common secretary/receptionist is already provided at 'Ace Incubator / Startup Village' and not in 'De Gasfabriek'.

The service with the second largest difference regarding the impact on satisfaction between both incubators is: (s36) Debt financing (absolute difference in CS = **0,52). Again, this service has a much higher impact on satisfaction according to the tenants of the 'De Gasfabriek' compared to the tenants of 'Ace Incubator / Startup Village'. Meaning that the tenants of 'De Gasfabriek' would be much more positively surprised if there would be a possibility to obtain debt financing in the BI (*0,52), than the tenants of 'Ace Incubator / Startup Village' (*-0,52). This is an odd finding, since in the overall findings in the previous sub-section (4.1) it became apparent that according to all 24 respondents the influence on satisfaction was rather low. Moreover, I acknowledged that finding, since in the qualitative interviews that I conducted with the tenants of 'De Gasfabriek' they indicated to me that their approach to survive and to stay in business as a start-up was not to resort to capital, but to go for a customer base and hence distribution. However, by dividing the complete sample into a sample that constitutes of the tenants of the 'De Gasfabriek' and a sample that resembles the tenants of 'Ace Incubator / Startup Village', it became apparent that the tenants of 'De Gasfabriek' would actually be positively surprised if there were a possibility to obtain debt financing. This is not in line with the input I obtained during the qualitative interviews. However, there might be a couple of explanations for this: perhaps there is currently no other possibility to grow/expend other than the approach that is currently offered by 'De Gasfabriek'; the provision of a launching customer and hence distribution. Hence, the tenants could have mentioned this, instead of a possibility to obtain debt financing because they are familiar with the current offering. Moreover, only 8 out of 12 of the tenants that resemble 'De Gasfabriek' sample were involved in the qualitative interviews. The other 4 might have had completely different ideas. However, what this example around the service: (s36) Debt financing does show, is that the overall findings regarding this service indicated that this was an 'Indifferent' service with a low impact on satisfaction. Whereas, dividing the sample into two different samples provided a new insight. Namely, that for the tenants of 'De Gasfabriek' the provision of debt financing could have a high impact on satisfaction.

The service: (s14) Group insurances (absolute difference in CS = **0,50) has the third highest difference regarding the impact on satisfaction and thus is the final service to be elaborated on in this respect. Like the previous two services, this service again has a much high impact on satisfaction according to the tenants of the 'De Gasfabriek' compared to the tenants of 'Ace Incubator / Startup Village'. Meaning that the tenants of 'De Gasfabriek' would be much more positively surprised if group insurances would be provided in the BI (*0,50), than the tenants of 'Ace Incubator / Startup Village' (*-0,50). The reason behind this could be that 'De Gasfabriek' does not offer something like group insurances yet, whereas 'Ace Incubator / Startup Village' perhaps already does.

Now that the services with the largest differences regarding the impact on satisfaction between both incubators have been discussed it is time to look at the services with the largest differences regarding the impact on dissatisfaction between both incubators.

Starting off with the service with the highest difference regarding the impact on dissatisfaction between both incubators: (s39) Creation of an (intrapreneurial) ecosystem (absolute difference in CS = **-0,66). What can be seen in Figure 29, is that this service has a much higher impact on dissatisfaction according to the tenants of the 'De Gasfabriek' compared to the tenants of 'Ace Incubator / Startup Village'. Meaning that the tenants of 'De Gasfabriek' would be much more negatively surprised if group insurances would not be provided in the BI (*-0,66), than the tenants of 'Ace Incubator / Startup Village' (*0,66). An explanation for this is, that the tenants of 'De Gasfabriek' expect such a service to be there. This service was added to the complete list of service offerings after conducting the qualitative interviews among tenants of 'De Gasfabriek'. Here they indicated that the creation of an (intrapreneurial) ecosystem was a very important aspect within 'De Gasfabriek'. Hence, it could be that this

service is not provided within 'Ace Incubator / Startup Village' and hence the tenants would perhaps not expect it to be there. Thus in turn, they could also not be negatively surprised if the service would not be provided, simply because they do not expect it to be there in the first place.

The value representing the second largest difference regarding the impact on dissatisfaction hosts two services: (s20) HR management/recruiting (absolute difference in CS = ******-0,33) and (s25) Coaching/mentoring (absolute difference in CS = ******-0,33). Contrary to the previous example, these 2 services both have a higher impact on dissatisfaction according to the tenants of 'Ace Incubator / Startup Village' compared to the tenants of 'De Gasfabriek'. Meaning that in case of both services, the tenants of 'Ace Incubator / Startup Village' would be more negatively surprised if HR management/recruiting and coaching/mentoring would not be provided in the BI (*-0,33), than the tenants of 'De Gasfabriek' (*0,33). The differences are a lot smaller than in the previous example. However, what can be concluded based on these numbers is that the tenants of 'Ace Incubator / Startup Village' had a higher expectation regarding the services: HR management/recruiting and coaching/mentoring than the tenants of 'De Gasfabriek'. And hence, if the services would not be provided by the BI, the tenants of 'Ace Incubator / Startup Village' would be more negatively affected and therefore these 2 services have a higher impact on dissatisfaction for the tenants of 'Ace Incubator / Startup Village' than for the tenants of 'De Gasfabriek'.

An additional finding worth pointing out is that the service: HR management/recruiting, is one of the 14 services which yielded the same attribute categories across both 'De Gasfabriek' and 'Ace Incubator / Startup Village' (see Figure 27). Nevertheless, the same service also showed to have the second largest difference regarding the impact on dissatisfaction when comparing the CS coefficients of both 'De Gasfabriek' and 'Ace Incubator / Startup Village'. Hence, showing that when a service is ascribed the same Kano attribute category for both 'De Gasfabriek' and 'Ace Incubator / Startup Village', it does not necessarily have to mean that the impact on satisfaction or dissatisfaction is similar as well.

The final contribution to this part of the analysis on incubator specific findings is the elaboration and interpretation of Figure 30, in which the average impact on satisfaction and on dissatisfaction across all incubators is displayed.

Figure 30. The average CS coefficients for the impact on satisfaction/dissatisfaction across all incubators.

Service offering category:	De Gasfabriek (12)		ACE/Startup Village (12)		Overall (24)	
	Average impact on satisfaction:	Average impact on dissatisfaction:	Average impact on satisfaction:	Average impact on dissatisfaction:	Average impact on satisfaction:	Average impact on dissatisfaction:
1. PHYSICAL INFRASTRUCTURE	0,46	-0,27	*0,53	-0,26	**0,50	-0,27
4. SHARED OFFICE SERVICES	0,49	-0,31	0,29	*-0,33	0,39	**0,32
2. BUSINESS SUPPORT	0,50	-0,22	0,47	-0,27	0,48	-0,25
3. NETWORKING	0,46	-0,30	0,50	-0,32	0,48	-0,31
5. FINANCING	*0,61	-0,19	0,34	-0,27	0,47	-0,23
6. RESULTS OF THE QUALITATIVE INTERVIEWS	*0,61	*-0,46	0,38	-0,17	0,49	-0,31
OVERALL	0,52	-0,29	0,42	-0,27	0,47	-0,30

* = Highest difference from average CS coefficients per incubator
 ** = Highest difference from average CS coefficients overall

In both 'De Gasfabriek' as in 'Ace Incubator / Startup Village', the average impact of services on satisfaction is higher than the average impact on dissatisfaction. Hence, this also holds for the overall findings and thus indicates that on average, services rather influence satisfaction than dissatisfaction for the tenants of both 'De Gasfabriek' and 'Ace Incubator / Startup Village', as well as for the overall sample.

However, the difference between the impact on satisfaction versus dissatisfaction for the tenants of 'De Gasfabriek' is larger than for the tenants of 'Ace Incubator / Startup Village'.

Where ‘De Gasfabriek’ has an average impact on satisfaction of 0,52, ‘Ace Incubator / Startup Village’ has an average impact on satisfaction of 0,42. The higher average impact on satisfaction for ‘De Gasfabriek’ (0,52) compared to 0,42 of the ‘Ace Incubator / Startup Village’ can be explained by the amount of ‘pure’ attractive services; 19 for ‘De Gasfabriek’ compared to 11 for ‘Ace Incubator / Startup Village’. And moreover, the larger difference between the average impact on satisfaction versus dissatisfaction in the sample of ‘De Gasfabriek’ can be attributed to the lower amount of ‘pure’ indifferent services; 12 for ‘De Gasfabriek’ compared to 20 for ‘Ace Incubator / Startup Village’.

4.3 ‘Customer oriented variables’

The third part of this sub-section is meant to shed light on the grouping/segmentation possibilities of the Kano model. This grouping/segmentation can be done within a sample to alter the Kano model according to the so-called ‘customer oriented variables’ (Matzler and Hinterhuber, 1998). In this thesis, this is done according to the variable: ‘Entrepreneurial experience’. What is worth pointing out is that the theoretical framework used by this thesis provides no information on this variable and the connection with the service offerings of BIs is not mentioned or discussed in this thesis. Hence, no conclusions can be made. The purpose of this part is to highlight the grouping and segmentation possibilities of the Kano model. And merely to show that there are differences in resulting attribute categories ascribed to the services offered by BI’s for different groups/segments. In this case, the tenant’ oriented variable: ‘Entrepreneurial experience’.

4.3.1 Entrepreneurial experience

To segment all responses according to ‘Entrepreneurial experience’, all 24 responses were placed in groups. Group 1 represented all tenants with an entrepreneurial experience of 2 years or less (12 responses). Whereas Group 2 covered all tenants with an entrepreneurial experience of more than 2 years. Again, the whole Kano model process was undertaken, so that ultimately an overview of the results of both Group 1 as well as Group 2 could be constructed. This overview can be found in ‘Appendix 14’. What can be seen in ‘Appendix 14’ is that there is a great overlap in Kano attributes assigned to the services for both Group 1 and Group 2. In fact, 21 services are assigned the identical Kano attribute category. This is even further underlined by Figure 31.

Figure 31. Allocation of Kano attribute categories across Group 1, Group 2 and all 24 responses.

	GROUP 1	GROUP 2	OVERALL
Attribute category:	ENTREPRENEURIAL EXPERIENCE = 2 YEARS OR < LESS (12 responses)	ENTREPRENEURIAL EXPERIENCE > MORE THAN 2 YEARS (12 responses)	(24 responses)
M (pure)	5	6	6
A (pure)	16	15	16
I (pure)	14	16	14
O (pure)	1	1	0
R (pure)	0	0	0
Q (pure)	0	0	0
Combined	6	4	6
Total:	42	42	42

However, although Group 1 and Group 2 have 21 identical attribute categories assigned to the total of 42 services and the allocation of attribute categories does seem to be very similar, some services do show to have differences regarding their impact on satisfaction/dissatisfaction between Group 1 and Group 2. In the ‘Appendix 15’ the differences

in CS coefficients of all services for both Group 1 and Group 2 for the segmentation 'Entrepreneurial experience' is provided. Hence, for the purpose of easing the interpretation process, Figure 32 offers a reduced list of the differences in CS coefficients, taking into account only the services with the three highest values for the differences in CS coefficients.

Figure 32. Services with the largest differences regarding the impact on satisfaction/dissatisfaction between Group 1 and Group 2.

BI service offerings:	GROUP 1		GROUP 2		Absolute Difference[]	
	ENTREPRENEURIAL EXPERIENCE = 2 YEARS OR < LESS (12 responses)		ENTREPRENEURIAL EXPERIENCE > MORE THAN 2 YEARS (12 responses)		Satisfaction:	Dissatisfaction:
	△ Satisfaction:	△ Dissatisfaction:	△ Satisfaction:	△ Dissatisfaction:		
1. PHYSICAL INFRASTRUCTURE						
Cafeteria/lunch room (s5):	-0,33	0,09	*0,33	-0,09	**0,33	-0,09
4. SHARED OFFICE SERVICES						
Custodial/maintenance (s10):	*0,42	0,25	-0,42	*-0,25	**0,42	**0,25
2. BUSINESS SUPPORT SERVICES						
Accounting and financial management (s18):	-0,08	*-0,25	0,08	0,25	0,08	**0,25
Information technology (IT) (s23):	0,00	*-0,25	0,00	0,25	0,00	**0,25
Workshops, training and education (s24):	0,25	*-0,25	-0,25	0,25	0,25	**0,25
3. NETWORKING						
Business connections between tenants (s29):	0,08	*-0,25	-0,08	0,25	0,08	**0,25
Mediation/links with institutions such as Universities (s32):	-0,08	*-0,25	0,08	0,25	0,08	**0,25
Access to skilled workforce (s34):	*0,37	0	-0,37	0	**0,37	0
5. FINANCING						
Assistance with government grants and loans (s37):	*0,33	-0,08	-0,33	0,08	**0,33	-0,08
6. RESULTS OF THE QUALITATIVE INTERVIEWS						

Looking at Figure 32, there are a few things that catch the eye. To start with the services: (s10) Custodial/maintenance, (s34) Access to skilled workforce and (s37) Assistance with government grants and loans. Not only do they have the largest values regarding the difference of impact on satisfaction between Group 1 and Group 2, but the service: (s10) Custodial/maintenance also has the highest value regarding the difference of impact on dissatisfaction. Hence, pointing out that Group 1 and Group 2 have very different opinions on this service. The tenants with an entrepreneurial experience of 2 years or less do not expect this service to be there, and if it would be provided it would have a high impact on their satisfaction. Whereas for the tenants with an entrepreneurial experience of more than 2 years, this service is expected to be there and if the service would not be provided by the BI, it would have a high impact on dissatisfaction. The services: (s34) Access to skilled workforce and (s37) Assistance with government grants and loans also lead to a high impact on satisfaction for Group 1 compared to Group 2. According to this finding, Group 1 does not expect these two service to be there and hence, if a BI would provide access to a skilled workforce and assistance with government grants and loans they would be positively surprised.

Furthermore, there are 5 services which lead to a higher impact on dissatisfaction for the tenants with an entrepreneurial experience of 2 years or less (Group 1) than for the tenants with an entrepreneurial experience of more than 2 years (Group 2). These are: Accounting and financial management (s18), Information technology (IT) (s23), Workshops, training and education (s24), Business connections between tenants (s29), Mediation/links with institutions such as Universities (s32). Thereby indicating that for the tenants with an entrepreneurial experience of 2 years or less of this sample, these services were more expected to be there than for the tenants with an entrepreneurial experience of more than 2 years of this sample. Group 1 would thus be more dissatisfied in the absence of these services compared to Group 2.

Finally, Figure 33 shows the average CS coefficients for the impact on satisfaction/dissatisfaction across Group 1, Group 2 and the overall findings. What can be seen is that the services falling into category 3. Networking both have a higher than average impact on satisfaction if provided as well as a higher impact on dissatisfaction if not provided for Group 1. Whereas, the services falling into the '1. Physical infrastructure' category have a higher than average impact on satisfaction, if provided for Group 2 and the services falling into category 4. Shared office services have a higher impact on dissatisfaction, if not provided for Group 2. Finally, the average impact on satisfaction is for both group higher than the average impact on dissatisfaction. Meaning that, on average services rather influence satisfaction than dissatisfaction for both groups.

Figure 33. The average CS coefficients for the impact on satisfaction/dissatisfaction across Group 1, Group 2 and the overall findings.

Service offering category:	GROUP 1 ENTREPRENEURIAL EXPERIENCE = 2 YEARS OR < LESS (12 responses)		GROUP 2 ENTREPRENEURIAL EXPERIENCE > MORE THAN 2 YEARS (12 responses)		OVERALL (24 responses)	
	Average impact on satisfaction:	Average impact on dissatisfaction:	Average impact on satisfaction:	Average impact on dissatisfaction:	Average impact on satisfaction:	Average impact on dissatisfaction:
1. PHYSICAL INFRASTRUCTURE	0,44	-0,26	*0,53	-0,22	**0,50	-0,27
4. SHARED OFFICE SERVICES	0,46	-0,29	0,32	*-0,34	0,39	**0,32
2. BUSINESS SUPPORT SERVICES	0,48	-0,31	0,42	-0,18	0,48	-0,25
3. NETWORKING	*0,53	*-0,34	0,43	-0,27	0,48	-0,31
5. FINANCING	0,51	-0,21	0,42	-0,25	0,47	-0,23
6. RESULTS OF THE QUALITATIVE INTERVIEWS	0,48	-0,31	0,50	-0,31	0,49	-0,31
OVERALL	0,48	-0,29	0,44	-0,26	0,47	-0,30

* = Highest difference from average CS coefficients per group

** = Highest difference from average CS coefficients overall

As can be seen from the example provided in this sub-section (4.3), the Kano model has the ability to process data which is segmented according to 'customer oriented variables' (tenant specific variables). In this case, the segmentation for the customer oriented variable 'Entrepreneurial experience' has been undertaken for all 24 responses. Leading to slightly different insights than the overall findings. Moreover, by looking at the differences in CS coefficients (both positive and negative), the differences regarding the impact on satisfaction/dissatisfaction could be assessed between both Group 1 and Group 2. Hence, making a direct comparison between the two groups. This could be used by managers of a BI to adjust the service offering to the individual needs and expectations of the tenants. Hence, in this case the segmentation was done on 'Entrepreneurial experience' and it could thus very well be that tenants with more entrepreneurial experience require different services from their incubators. The approach as used in this sub-section (4.3) could be used for each 'customer oriented variable'. Meaning also variables such as 'Team size', 'Firm age', 'Industry' etc. Moreover, the same approach could be used for the responses within 1 incubator. So that the respective manager can assess the individual needs and expectations of the tenants within one BI.

5 Discussion

5.1 Findings

This part is dedicated to a discussion of the research questions of this thesis. The questions will be answered according to the order in which the necessary information is provided to give a valid and meaningful answer throughout this thesis. Hence, sub-question 1 will be discussed first, as the literature review section in chapter 2 covered this question first. Then the focal research question will be answered followed by sub-question 2.

5.1.1 Sub-question 1

- Which services are offered to Business Incubator (BI) tenants?

The first sub-question of this thesis has already been answered according to the first sub-section of chapter 2 (2.1), in which a systematic literature review has been undertaken in combination with qualitative interviews to arrive at a complete list of services offered by BIs. The systematic literature review on its own yielded a list of 38 services divided over 5 service categories, which can be found in Figure 8. Whereas the qualitative interviews with tenants of 'De Gasfabriek' added another 4 services to this list. In the end, these two approaches together yielded a list of 42 services which can be offered by BIs to their tenants. That is according to the scientific literature, as well as from the statements and opinions of real-life practical examples. This resulting list of 42 services can be found in Figure 10.

5.1.2 Focal research question

- Which services lead to high levels of customer satisfaction for Business Incubator (BI) tenants?

After having walked through the complete Kano model process for the whole sample of 24 responses, the overall findings as presented in chapter 4.1, have provided the necessary information to give answer to the focal research question. What is worth mentioning beforehand, is that the focal research question will be answered based on the complete sample size of this thesis (24 responses). Hence, generalizability problems may be at hand due to the small sample size. This point of attention will be further explained in more detail in the limitations sub-section of this thesis in chapter 5.3.

As also indicated in sub-section 4.1, high levels of customer satisfaction can only be obtained when the effect of negative disconfirmation on satisfaction is eliminated, since the effect of negative disconfirmation on satisfaction is far greater than the effect of positive disconfirmation (Hill, 1986). Therefore, first, based on this sample of 24 responses all 8 must-be services: an Affordable office space (s1), Security (s9), IT-related services/network support (s12), Help with the business plan (s15), Coaching/mentoring (s25), Outside business connections (s28), Business connections between tenants (s29) and the Creation of an intrapreneurial ecosystem (s39), need to be in place as they form the basis to start with. From here on, the services with the highest impact on satisfaction can be added, so that ultimately high levels of customer satisfaction for BI tenants can be obtained.

Figure 34 provides an overview of the services which lead to high levels of customer satisfaction for BI tenants. Ranging from high to low. Only the services falling under the 'Attractive' attribute category and the 'One-dimensional' attribute category have been included. Hence, in line with the logic as provided by Kano et al. (1984) and Rashid et al. (2010), because according to their recommendations, the remaining attribute categories (I, R and Q) should be avoided (see Figure 14). Also, the services that have a 'combined' attribute

category are included, with the requirement that they should be ascribed either the 'Attractive' or the 'One-dimensional' category as well. In total, a list of 19 services that lead to high levels of customer satisfaction for Business Incubator (BI) tenants have been discovered based on this sample used by this study (Figure 34). These 19 services will only lead to high levels of customer satisfaction if the 8 must-be services as mentioned above are offered by the BI at all times.

Figure 34. An overview of the 19 services with the highest impact on satisfaction based on the overall findings.

BI service offerings:	Overall (24)		
	Attribute category:	Satisfaction:	Dissatisfaction:
Credibility/visibility enhancement (s3):	A/O	**0,75	-0,54
Access to skilled workforce (s34):	A	**0,74	0,00
Workshops, training and education (s24):	A	**0,71	-0,29
Conference/meeting room (s4):	A	0,67	-0,33
Marketing/sales (s16):	A	0,67	-0,42
Subsidies related to cost reduction (s38):	A	0,67	-0,29
Cafeteria/lunch room (s5):	A	0,58	-0,13
Provision of a launching customer/distribution (s41):	A	0,58	-0,29
Accounting and financial management (s18):	A	0,54	-0,29
Outside strategic partners (s30):	A	0,54	-0,42
Idea generation (s40):	A	0,54	-0,38
Sports facilities (s7):	A/I	0,50	0,00
Group insurances (s14):	A	0,50	-0,08
R&D (product/service development) (s17):	A	0,50	-0,13
Assistance with government grants and loans (s37):	A	0,50	-0,29
Bread fund (s42):	A	0,50	-0,08
Public relations/referral (s21):	A	0,48	-0,24
Help with relocation (s27):	A/I	0,48	-0,04
Legal advice (s19):	A	0,42	-0,29

5.1.3 Sub-question 2

- To what extent differ the identified services in terms of the impact on customer satisfaction and dissatisfaction levels for tenants of different BIs?

This is the final research question that will be addressed in this sub-section. Hence, normally the focal research question would be answered at the end. However, the information which is required to answer the second sub-question of this thesis was provided in chapter 4.2 and hence after the overall findings (4.1). To adjourn to the structure as described in the introduction of this sub-section, the second sub-question is thus answered last. As said before, the information required to answer this question is provided in chapter 4.2. In this sub-section, the overall sample has been divided into two smaller samples, each constituting of a different BI. Namely, 'De Gasfabriek' and 'Ace Incubator / Startup Village'. The Kano model results for both samples have been provided and compared in chapter 4.2 so that an answer can be given regarding the second sub-question. In Figure 29, a complete list of the differences in CS coefficients of all 42 services across both 'De Gasfabriek' and 'Ace Incubator / Startup Village' has been provided. This list forms the answer to the second sub-question of this thesis. However, since the differences regarding the impact on customer satisfaction/dissatisfaction levels are for some services only very minor, Figure 35 was constructed. Here, the services with the three largest differences for the impact on satisfaction

as well as the services with the three largest differences for the impact on dissatisfaction between 'De Gasfabriek' and 'Ace Incubator / Startup Village' are displayed. Although Figure 35 does not answer the second sub-question, it is provided in this part, merely to emphasize the services with the biggest differences services in terms of the impact on customer satisfaction and dissatisfaction levels for tenants of different BIs ('De Gasfabriek' and 'Ace Incubator / Startup Village'). And to show that there are major differences between the yielded attribute categories for the 42 identified services according to the tenants of the two different incubators used in the overall sample.

Figure 35. Services with the largest differences regarding the impact on satisfaction/dissatisfaction across both 'De Gasfabriek' and 'Ace Incubator / Startup Village'.

BI service offerings:	De Gasfabriek (12)		ACE/Startup Village (12)		Absolute Difference[]	
	△ Satisfaction:	△ Dissatisfaction:	△ Satisfaction:	△ Dissatisfaction:	Satisfaction:	Dissatisfaction:
1. PHYSICAL INFRASTRUCTURE						
4. SHARED OFFICE SERVICES						
Common secretary/receptionist (s13):	*0,58	-0,08	-0,58	0,08	**0,58	-0,08
Group insurances (s14):	*0,50	0,00	-0,50	0,00	**0,50	0,00
2. BUSINESS SUPPORT SERVICES						
HR management/recruiting (s20):	0,11	0,33	-0,11	*-0,33	0,11	** -0,33
Coaching/mentoring (s25):	-0,42	0,33	0,42	*-0,33	0,42	** -0,33
3. NETWORKING						
5. FINANCING						
Debt financing (s36):	*0,52	0,10	-0,52	-0,10	**0,52	-0,10
6. RESULTS OF THE QUALITATIVE INTERVIEWS						
Creation of an (intrapreneurial) eco-system (s39):	0,00	*-0,66	0,00	0,66	0,00	** -0,66

* = Highest three differences in CS coefficients per incubator
 ** = Highest three absolute CS coefficient differences

5.2 Theoretical contributions

This study contributes to the current literature in manifold ways. First, the customer satisfaction construct has been introduced in the BI literature. And in particular, customer satisfaction levels ascribed to the service offerings of BIs from the perspective of the tenant. Up till now the satisfaction construct was rather untouched in the BI literature. Although a couple of studies have made a first step (Abduh et al., 2007; Robinson and Stubberud, 2014). For example: the study of Abduh et al. (2007), in which support services offered by BIs were grouped according to satisfaction levels experienced by the tenants. Even though some comparisons are provided throughout this thesis, the approach and especially the methods used have been very different between this thesis and the study of Abduh et al. (2007). The study of Abduh et al. (2007) made use of an own developed satisfaction matrix (SATMAT), which calculated satisfaction by deducting the mean perceived effectiveness of service provision from the mean importance of a service. Hence, meaning that both should be known ex ante and services must already been provided. The satisfaction output measured in the study of Abduh et al. (2007) is thus merely an outcome of experienced satisfaction. Whereas in this study, the Kano model has been introduced in the BI context. The Kano model has the ability to assess the satisfaction levels of services which are already provided, but also for services which are perhaps to be provided in the future. In other words; satisfaction levels attributed to potential 'new-in-the-pipeline' offerings can also be tested according to the Kano model. Which can contribute to valuable insights regarding future decision-making.

Second, the results of this study showed that tenants ascribe different levels of satisfaction/dissatisfaction to different services. Moreover, this study also showed that the levels of satisfaction/dissatisfaction ascribed to support services varies for different groups of tenants. And as needs and expectations prevail customer satisfaction levels (Parasuraman et al., 1990), thereby thus indicating that needs and expectations differ per tenant. This is in line with the study of Abduh et al. (2007) in which the satisfaction levels attributed to support services differed for each service as well. In the study of Abduh et al. (2007) the facility related services account for the highest levels of customer satisfaction. The two remaining categories (counselling and business networking) taken into consideration in the study of Abduh et al. (2007) showed to be ascribed much lower levels of satisfaction. In this study, the amount of services taken into account, the categorization and the way of measuring satisfaction/dissatisfaction differed substantially from the study of Abduh et al. (2007). Hence, a direct comparison is hard to make. However, the new findings of this study do provide an empirical contribution by enhancing the knowledge about satisfaction levels attributed to support services of BIs. With the most important findings being: that on average, the services offered by business incubators have a higher impact on satisfaction than on dissatisfaction. Moreover, the services with the highest impact on satisfaction based on the overall sample were found to be: Credibility/visibility enhancement, Access to skilled workforce and Workshops, training and education. Whereas the services with the highest impact on dissatisfaction according to the overall sample were found to be: IT-related services/network support, Affordable office space and Security. These findings are relevant in the context of entrepreneurship development research, as providing insights which services lead to high levels of customer satisfaction and which services lead to high levels of dissatisfaction can act as a first step for BIs to align tenants' needs and expectations with their offerings.

Third, a methodological contribution has been made by introducing the Kano model as a method in the BI context to measure customer satisfaction levels attached to service offerings. Thereby broadening the application context of the Kano model. As can be seen in 'Appendix 5', the Kano model has been used in various research settings. In various formats: a model of quality, customer requirements, production, product design, product development and customer satisfaction (Rashid et al., 2010). However, not yet in the BI context. With the application of the Kano model in this new setting, this study further emphasized and strengthened its usefulness and applicability as a model to measure customer satisfaction in an easy and reproducible way. The model proved to have a great potential in understanding the degree to which BI support services can influence satisfaction/dissatisfaction. Moreover, by the means of the Kano model, trade-off situations can be better dealt with, due to the categorization output and the numerical values ascribed to support services regarding satisfaction/dissatisfaction and thus decision-making is enhanced. Finally, segmentation of the data prior to the application of the Kano model, resulted in different outputs and hence different levels of satisfaction/dissatisfaction for different groups/segments. Thereby, acknowledging the fact that this model can be used as an instrument when different segments/groups need to be compared. In this case, tenants from different incubators as well as tenants with a different level of entrepreneurial experience.

5.3 Practical contributions

In practice this study provides insights to various stakeholders of BIs. To start with managers of BIs. They are provided with a tool to measure the impact on satisfaction/dissatisfaction for the services offered by their respective BI. Moreover, the complete list of services, yielded from the systematic literature review can be used as a starting point to also assess the opinions of tenants around services which are possibly not currently offered by the respective BI. This thesis also describes the recommendations regarding the outcomes of the Kano method. Managers should focus on 'Must-be', 'Attractive' and 'One-dimensional' services and devote less time and resources to the others.

The overall sample in this thesis yielded the following results: the services with the highest impact on satisfaction based on the overall sample were found to be: Credibility/visibility enhancement, Access to skilled workforce and Workshops, training and education. These are all services which were not expected to be there by the tenants making up the overall sample. Hence, according to the recommendations of the Kano method, BI managers must include a good amount of such services which lead to high levels of satisfaction. Therefore, based on the sample used by this study, BI managers should take these three services into consideration when formulating their portfolio of service offerings. Credibility/visibility enhancement accounted for the highest impact on satisfaction. In the study of Abduh et al. (2007) Credibility/visibility enhancement scored 2nd highest regarding the effect on satisfaction. Moreover, Workshops, training and education had a high impact on satisfaction according in this study, as well as in the study of Abduh et al. (2007). Although both studies differ substantially in terms of categorization, methods and approach used, these findings are very much in line. The services with the highest impact on dissatisfaction according to the overall sample were found to be: IT-related services/network support, Affordable office space and Security. Hence, managers of BIs should pay extra attention to the provision of such 'Must-be' services. Because if these basic services would not be offered, this would lead to high levels of dissatisfaction for at least the tenants making up this sample. With these services that lead to high levels of dissatisfaction it is hard to make a comparison with the study of Abduh et al. (2007) due to different categorization and different services taken into account.

Moreover, the findings of this thesis show managers of BIs that results can vary even between incubators with the same typology. Both 'De Gasfabriek' as well as 'Ace Incubator / Startup Village' are also of the same typology, yet yield different results. Hence, indicating that tenants can have different needs and expectations. This could be the result of different tenant characteristics (customer oriented variables) such as: team size, firm age or entrepreneurial experience amongst others. In this thesis, the data has also been grouped according to the customer oriented variable 'Entrepreneurial experience'. The findings indicated that there were indeed differences between the group consisting of entrepreneurs with less than 2 years entrepreneurial experience (Group 1) as opposed to the group consisting of entrepreneurs with more than 2 years of entrepreneurial experience (Group 2). The services: (s34) Access to skilled workforce and (s37) Assistance with government grants and loans lead to a higher impact on satisfaction for Group 1 compared to Group 2. Moreover, there are 5 services which lead to a higher impact on dissatisfaction for Group 1 than for Group 2. These are: Accounting and financial management (s18), Information technology (IT) (s23), Workshops, training and education (s24), Business connections between tenants (s29), Mediation/links with institutions such as Universities (s32).

Therefore, BI managers should group the data according to such variables to see whether individual needs and expectations vary. Then, the service offerings could be adjusted according to the characteristics of the tenants.

By the means of this thesis, BI managers can develop in-depth knowledge about the incubator services needed in a quickly to clarify and quantify way (Bhattacharyya & Rahman, 2004). And moreover, they will gain an insight as to how to allocate their effort and resources regarding their service offerings. All might enable a BI and their respective manager to 1) offer start-ups with better and personalized assistance to facilitate successful and self-sustaining ventures and 2) stand out in doing so, thereby outperforming its rivals to attain a competitive advantage.

To conclude, another stakeholder of a BI that benefits from these findings is the tenant (start-up). Especially, prior to committing to a specific incubator. By using the complete list of services as provided by this study as a starting point, tenants can run the Kano model to see where their preferences lie before choosing an incubator. So that also from a tenants' perspective, their individual preferences can be better in line with the services offered by a particular BI. If the offerings of a BI and the obtained results from the Kano model differ substantially, tenants could look further. Hence, the incubator selection process from a tenants' perspective could be thus be improved by the means of this thesis.

5.4 Limitations and future research

Although this study has introduced a method to measure the impact on customer satisfaction levels attached to the service offerings of BIs, which was not used before in the BI context. The outcomes did not yield in depth findings regarding the needs and expectations of tenants and hence, what caused the satisfaction levels to differ between tenants and between services. In other words; merely the outcome in numbers is provided in this thesis, but not the underlying thought. Which is however very important, as also underlined by Bruneel et al. (2012). According to them, developing an understanding of what customers seek in a product or service is vital for a BI to align tenants' needs and expectations with their offerings. Hence, this can be an interesting subject for further research. Combining the two could yield very interesting results, especially because the 'why' question regarding the different satisfaction levels attached to services can then be answered. So that ultimately the 'strategic fit' of BIs, including internal and external alignment, as researched by Vanderstraeten and Matthyssens (2012), can be further assessed and optimized. A good starting point could be to dive deeper into the tenant specific variables ('customer oriented variables'). Students and researchers could address the literature around this construct and around factors such as 'Entrepreneurial experience', 'Team size', 'Firm age' etc. To see for example whether tenants with a higher entrepreneurial experience have different needs and requirements according to the literature. Hypothesis can be constructed and tested according to the outcomes of the Kano model. With the segmentation/grouping ability as illustrated in chapter 4.3.

The final point worth mentioning regarding future directions is an extension of the current study. This thesis only incorporated 2 incubators in its sample. Hence, the same study can be undertaken across more incubators. Both within the same incubator typology as well as cross-sectional. So that more insights can be obtained as to which services impact satisfaction/dissatisfaction. Moreover, besides increasing the sample, the comparisons can also be made between countries and continents.

5.5 Conclusion

In the end, it can be concluded that BIs offer a wide variety of support services. In this study, 42 different support services were identified by the means of a systematic literature review. The impact on satisfaction/dissatisfaction differed for all 42 services of the overall sample of 24 responses. The overall findings suggested that there are 8 'Must-be' services which a BI needs to live up to at all times; an Affordable office space (s1), Security (s9), IT-related services/network support (s12), Help with the business plan (s15), Coaching/mentoring (s25), Outside business connections (s28), Business connections between tenants (s29) and the Creation of an intrapreneurial ecosystem (s39).

Furthermore, the overall sample showed that on average services rather influence satisfaction as opposed to dissatisfaction. With the services with the highest impact on satisfaction being: Credibility/visibility enhancement (s3), Access to skilled workforce (s34) and Workshops, training and education (s24). Credibility/visibility enhancement (s3) has the highest impact on satisfaction and is besides attributed to the 'Attractive' category also attributed to the 'One-dimensional' attribute category. Thereby indicating that incubator management should focus on services falling under both the 'Attractive' and the 'One-dimensional' category.

Besides finding different impacts on satisfaction/dissatisfaction for all 42 services for the overall sample, this thesis also found differences within the overall sample. The 24 responses were divided into 12 responses from incubator: 'De Gasfabriek' and 12 responses from incubator: 'Ace Incubator / Startup Village'. What became apparent was that there was some overlap between the results for both incubators. However, some results were very divergent. Thereby, indicating that although the incubators have a similar typology, their tenants

indicated to have different preferences regarding the services offered. And hence, the focus and resource allocation should thus differ between the two.

Next, the Kano model showed its ability to process segmented data. The overall sample was divided into: a sample representing 'De Gasfabriek' and a sample representing 'Ace Incubator / Startup Village'. Moreover, another example has been used by this thesis, namely the grouping/segmentation according to the tenant specific variable ('customer oriented variable') 'Entrepreneurial experience'. Again, the two groups making up this sample had different results regarding the impact on satisfaction/dissatisfaction for certain services. Thus, besides highlighting the ability of the Kano model to handle segmented data, also these insights shed light on the individual preferences of the tenants. A good starting point to dive deeper into this matter is to look at more 'customer oriented variables'.

All in all, it can be concluded that this study presented easily understandable and reproducible results for theory and practice. A theoretical framework was provided, including the Kano model as the main research instrument. Incubator management can use this paper to adjust their service offerings according their impact satisfaction/dissatisfaction for individual tenants. Moreover, (potential) tenants of BIs can use this paper and the Kano model in particular to see whether their needs and expectations are covered by the service offerings of BIs. So that a better BI selection can be made.

Although the aim of this study was to develop a better understanding of the needs and expectations of the tenants, the main findings merely provide practitioners as well as academics with insights regarding 'which' services have priority over others. 'Why' this is the case cannot be explained by the means of the results of this thesis. Hence, diving deeper into the needs and expectations of tenants and link those with the results obtained according to the outcomes of the Kano method, represents an opportunity for future research. Combining the two will increase the knowledge in the academic field of entrepreneurship and improve the quality of BIs, so that they can: 1) offer their tenants assistance in order for them to be successful and self-sustaining, 2) stand out in doing so, to be competitive.

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Appendix

Appendix 1. Full systematic reference list (1/3).

No:	Authors:	Title:	Year:	Cited by:	'Service' in conjunction with 'incubator' in abstract:	'Incubator Services' presented in the form of a list, a table or a figure:	New (non-overlapping) information:
				Exclusion criterion 1:	Exclusion criterion 2:	Exclusion criterion 3:	Exclusion criterion 4:
1	Bernanke, Gertler and Gilchrist	"Chapter 21: The financial accelerator in a quantitative business cycle framework"	1999	1152	-	-	-
2	Bernanke, Gertler and Gilchrist	"The financial accelerator and the flight to quality"	1996	598	-	-	-
3	Clarysse, Wright, Lockett, Van de Velde and Phan, Siegel and Wright	"Spinning out new ventures: A typology of incubation strategies from European research institutions"	2005	286	Yes	-	-
4	Phan, Siegel and Wright	"Science parks and incubators: Observations, synthesis and future research"	2005	240	-	-	-
5	Côté and Cohen-Rosenthal	"Designing eco-industrial parks: A synthesis of some experiences"	1998	237	-	-	-
6	Colombo and Delmastro	"How effective are technology incubators? Evidence from Italy"	2002	227	-	-	-
7	Milan	"Assessing value-added contributions of university technology business incubators to tenant firms"	1996	189	Yes	Yes	Yes
8	Ballingtoft and Ulhøi	"The networked business incubator - Leveraging entrepreneurial agency?"	2005	180	-	-	-
9	Hansen, Chesbrough, Nohria and Sull	"Networked incubators. Hothouses of the new economy."	2000	178	Yes	Yes	Yes
10	Löfsten and Lindelöf	"Science Parks and the growth of new technology-based firms - Academic-industry links, innovation and"	2002	177	-	-	-
11	Bergek and Norman	"Incubator best practice: A framework"	2008	173	Yes	Yes	Yes
12	Wright	"The incubator - Positive organizational behavior: An idea whose time has truly come"	2003	163	-	-	-
13	Grimaldi and Grandi	"Business incubators and new venture creation: An assessment of incubating models"	2005	147	Yes	Yes	Yes
14	Rice	"Co-production of business assistance in business incubators: An exploratory study"	2002	147	Yes	Yes	Yes
15	Rothaermel and Thursby	"University-incubator firm knowledge flows: Assessing their impact on incubator firm performance"	2005	144	-	-	-
16	Rothaermel and Thursby	"Incubator firm failure or graduation?: The role of university linkages"	2005	136	-	-	-
17	Aernoudt	"Incubators: Tool for entrepreneurship?"	2004	136	-	-	-
18	Siegel, Westhead and Wright	"Assessing the impact of university science parks on research productivity: Exploratory firm-level evidence"	2003	135	-	-	-
19	Shi, Chertow and Song	"Developing country experience with eco-industrial parks: a case study of the Tianjin Economic-Technological Development Area in China"	2010	131	-	-	-
20	Chan and Lau	"Assessing technology incubator programs in the science park: The good, the bad and the ugly"	2005	128	Yes	Yes	Yes
21	Aoki, Proudman and Vlieghe	"House prices, consumption, and monetary policy: A financial accelerator approach"	2004	125	-	-	-
22	Cooper	"The role of incubator organizations in the founding of growth-oriented firms"	1985	125	-	-	-
23	Westhead	"R&D 'inputs' and 'outputs' of technology-based firms located on and off Science Parks"	1997	124	-	-	-
24	Vedovello	"Science parks and university-industry interaction: Geographical proximity between the agents as a driving force"	1997	122	-	-	-
25	Gertler, Gilchrist and Natalucci	"External constraints on monetary policy and the financial accelerator"	2007	114	-	-	-
26	Link and Scott	"U.S. science parks: The diffusion of an innovation and its effects on the academic missions of universities"	2003	114	-	-	-
27	Inkpen and Wang	"An examination of collaboration and knowledge transfer: China-Singapore Suzhou industrial park"	2006	111	-	-	-
28	Aerts, Matthysens and Vandenbempt	"Critical role and screening practices of European business incubators"	2007	110	-	-	-
29	Lambert and Boons	"Eco-industrial parks: Stimulating sustainable development in mixed industrial parks"	2002	107	-	-	-
30	Quintas, Wied and Massey	"Academic-industry links and innovation: questioning the science park model"	1992	105	-	-	-
31	Felsenstein	"University-related science parks - 'seedbeds' or 'enclaves' of innovation?"	1994	100	-	-	-
32	Tan	"Growth of industry clusters and innovation: Lessons from Beijing Zhongguancun Science Park"	2006	99	-	-	-
33	Bakouros, Mardas and Varsakelis	"Science park, a high tech fantasy?: An analysis of the science parks of Greece"	2002	99	-	-	-
34	Côté and Hall	"Industrial parks as ecosystems"	1995	97	-	-	-
35	Tötterman and Sten	"Start-ups: Business incubation and social capital"	2005	96	Yes	-	-
36	Tudor, Adam and Bates	"Drivers and limitations for the successful development and functioning of EIPs (eco-industrial parks): A literature review"	2007	95	-	-	-
37	McAdam and McAdam	"High tech start-ups in University Science Park incubators: The relationship between the start-up's lifecycle progression and use of the incubator's resources"	2008	93	Yes	Yes	-
38	Siegel, Westhead and Wright	"Science Parks and the Performance of New Technology-Based Firms: A Review of Recent U.K. Evidence and an Agenda for Future Research"	2003	93	-	-	-
39	Wright, Liu, Buck and Filatotchev	"Returnee entrepreneurs, science park location choice and performance: An analysis of high-technology SMEs in China"	2008	88	-	-	-
40	Etzkowitz, De Mello and Almeida	"Towards 'meta-innovation' in Brazil: The evolution of the incubator and the emergence of a triple helix"	2005	86	-	-	-
41	Autio and Klofsten	"A comparative study of two European business incubators"	1998	86	Yes	-	-
42	Christensen and Dib	"The financial accelerator in an estimated New Keynesian model"	2008	84	-	-	-
43	Carayannis and Von Zedtwitz	"Architecting gloCal (global-local), real-virtual incubator networks (G-RVINS) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: Lessons learned and best practices from current development and business incubation practices"	2005	84	Yes	Yes	-
44	Evans	"Mutual fund incubation"	2010	81	-	-	-
45	Löfsten and Lindelöf	"R&D networks and product innovation patterns - Academic and non-academic new technology-based firms on Science Parks"	2005	79	-	-	-
46	Bruneel, Ratinho, Clarysse and Groen	"The evolution of business incubators: Comparing demand and supply of business incubation services across different incubator generations"	2012	78	Yes	Yes	Yes
47	Hansson, Husted and Vestergaard	"Second generation science parks: From structural holes jockeys to social capital catalysts of the knowledge society"	2005	77	-	-	-
48	Philimore	"Beyond the linear view of innovation in science park evaluation. An analysis of Western Australian Technology Park"	1999	77	-	-	-
49	Chew, Tan, Foo and Chiu	"Game theory approach to the analysis of inter-plant water integration in an eco-industrial park"	2009	74	-	-	-
50	Mian	"US university-sponsored technology incubators: an overview of management, policies and performance"	1994	74	Yes	-	-
51	Fukugawa	"Science parks in Japan and their value-added contributions to new technology-based firms"	2006	72	-	-	-
52	Lindelöf and Löfsten	"Science Park Location and New Technology-Based Firms in Sweden - Implications for Strategy and Performance"	2003	72	-	-	-
53	Macdonald	"British Science Parks: Reflections on the Politics of High Technology"	1987	72	-	-	-
54	Ratinho and Henriques	"The role of science parks and business incubators in converging countries: Evidence from Portugal"	2010	71	-	-	-
55	Zhang, Yuan, Bi, Zhang and Liu	"Eco-industrial parks: national pilot practices in China"	2010	71	-	-	-
56	Lai and Shyu	"A comparison of innovation capacity at science parks across the Taiwan Strait: The case of Zhangjiang High-Tech Park and Hsinchu Science-based Industrial Park"	2005	70	-	-	-
57	Behera, Kim, Lee, Suh and Park	"Evolution of 'designed' industrial symbiosis networks in the Ulsan Eco-industrial Park: 'Research and development into business' as the enabling framework"	2012	69	-	-	-
58	Yang, Motohashi and Chen	"Are new technology-based firms located on science parks really more innovative?. Evidence from Taiwan"	2009	68	-	-	-
59	Hackett and Dilts	"A real options-driven theory of business incubation"	2004	68	-	-	-
60	Hughes, Ireland and Morgan	"Stimulating Dynamic Value: Social Capital and Business Incubation as a Pathway to Competitive Success"	2007	67	Yes	-	-
61	Link and Scott	"The economics of university research parks"	2007	64	-	-	-
62	Elabras Veiga and Magrini	"Eco-industrial park development in Rio de Janeiro, Brazil: a tool for sustainable development"	2009	63	-	-	-
63	Scillitoe and Chakrabarti	"The role of incubator interactions in assisting new ventures"	2010	62	Yes	Yes	-

Full systematic reference list (2/3).

No:	Authors:	Title:	Year:	Cited by:	'Service' in conjunction with 'incubator' in abstract:	'Incubator Services' presented in the form of a list, a table or	New (non-overlapping) information:	
					Exclusion criterion 1:	Exclusion criterion 2:	Exclusion criterion 3:	Exclusion criterion 4:
64	Hutton	"Incubation temperatures, sex ratios and sex determination in a population of Nile crocodiles (Crocodylus niloticus)"	1987	61	-	-	-	-
65	Boix, Montastruc, Pibouleau, Azzaro-Pantel	"Industrial water management by multiobjective optimization: From individual to collective solution through eco-industrial parks"	2012	60	-	-	-	-
66	Link and Scott	"U.S. university research parks"	2006	59	-	-	-	-
67	Rothschild and Darr	"Technological incubators and the social construction of innovation networks: An Israeli case study"	2005	59	Yes	-	-	-
68	Weijland	"Microenterprise clusters in rural Indonesia: Industrial seedbed and policy target"	1999	58	-	-	-	-
69	Chen	"Technology commercialization, incubator and venture capital, and new venture performance"	2009	57	Yes	-	-	-
70	Löfsten and Lindelöf	"Science parks in Sweden - Industrial renewal and development?"	2001	57	-	-	-	-
71	Keckler and Allen	"Material Reuse Modeling: A Case Study of Water Reuse in an Industrial Park"	1998	57	-	-	-	-
72	Phillips	"Technology business incubators: How effective as technology transfer mechanisms?"	2002	56	Yes	Yes	Yes	Yes
73	Nowak and Grantham	"The virtual incubator: Managing human capital in the software industry"	2000	56	Yes	-	-	-
74	Sherman and Chappell	"Methodological challenges in evaluating business incubator outcomes"	1998	56	-	-	-	-
75	Bigliardi, Dormio, Nosella and Petroni	"Assessing science parks' performances: Directions from selected Italian case studies"	2006	55	-	-	-	-
76	Grosh and Somolekae	"Mighty oaks from little acorns: Can microenterprise serve as the seedbed of industrialization?"	1996	55	-	-	-	-
77	Geng, Zhang, Côté and Fujita	"Assessment of the national eco-industrial park standard for promoting industrial symbiosis in China"	2009	54	-	-	-	-
78	Sakr, Baas, El-Haggag and Husingh	"Critical success and limiting factors for eco-industrial parks: Global trends and Egyptian context"	2011	51	-	-	-	-
79	Boix, Montastruc, Azzaro-Pantel and Domenech	"Optimization methods applied to the design of eco-industrial parks: A literature review"	2015	50	-	-	-	-
80	Schwartz and Hornych	"Specialization as strategy for business incubators: An assessment of the Central German Multimedia Center"	2008	50	Yes	-	-	-
81	Lee and Osteryoung	"A comparison of critical success factors for effective operations of university business incubators in the United States and Korea"	2004	50	-	-	-	-
82	Delli Gatti, Gallegati, Greenwald, Russo and S	"The financial accelerator in an evolving credit network"	2010	48	-	-	-	-
83	Von Zedtwitz and Grimaldi	"Are service profiles incubator-specific? Results from an empirical investigation in Italy"	2006	49	Yes	Yes	-	-
84	Koh, Koh and Tschang	"An analytical framework for science parks and technology districts with an application to Singapore"	2005	49	-	-	-	-
85	Chen and Huang	"A multiple criteria evaluation of high-tech industries for the science-based industrial park in Taiwan"	2004	49	-	-	-	-
86	Löfsten and Lindelöf	"Determinants for an entrepreneurial milieu: Science Parks and business policy in growing firms"	2003	49	-	-	-	-
87	Kohli, Lehmann and Pae	"Extent and impact of incubation time in new product diffusion"	1999	49	-	-	-	-
88	Schwartz and Hornych	"Cooperation patterns of incubator firms and the impact of incubator specialization: Empirical evidence from Germany"	2010	48	-	-	-	-
89	Chen, Wu and Lin	"Evaluating the development of high-tech industries: Taiwan's science park"	2006	48	-	-	-	-
90	Liarska-Bizukojc, Bizukojc, Marcinkowski and	"The conceptual model of an eco-industrial park based upon ecological relationships"	2009	47	-	-	-	-
91	McAdam, Keogh, Galbraith and Laurie	"Defining and improving technology transfer business and management processes in university innovation centres"	2005	47	Yes	-	-	-
92	Geng and Hengxin	"Industrial park management in the Chinese environment"	2009	46	-	-	-	-
93	McAdam and Marlow	"Building futures or stealing secrets?: Entrepreneurial cooperation and conflict within business incubators"	2007	46	Yes	Yes	Yes	Yes
94	Brown and Moshavi	"The incubator - Transformational leadership and emotional intelligence: A potential pathway for an increased understanding of interpersonal influence"	2005	46	-	-	-	-
95	Abetti	"Government-supported incubators in the Helsinki region, Finland: Infrastructure, results, and best practices"	2004	46	-	-	-	-
96	Westhead and Batstone	"Perceived benefits of a managed science park location"	1999	46	-	-	-	-
97	Ballingtoft	"The bottom-up business incubator: Leverage to networking and cooperation practices in a self-generated, entrepreneurial-enabled environment"	2012	44	Yes	Yes	Yes	Yes
98	Filatovchev, Liu, Lu and Wright	"Knowledge spillovers through human mobility across national borders: Evidence from Zhongguancun Science Park in China"	2011	44	-	-	-	-
99	Squicciarini	"Science Parks' tenants versus out-of-Park firms: Who innovates more? A duration model"	2008	44	-	-	-	-
100	Mian	"The university business incubator: A strategy for developing new research/technology-based firms"	1996	43	Yes	Yes	-	-
101	Schwartz	"Beyond incubation: An analysis of firm survival and exit dynamics in the post-graduation period"	2009	41	-	-	-	-
102	Cooper and Park	"The impact of 'incubator' organizations on opportunity recognition and technology innovation in new, entrepreneurial high-technology ventures"	2008	41	Yes	-	-	-
103	Van Dierdonck, Debackere and Rappa	"An assessment of science parks: Towards a better understanding of their role in the diffusion of technological knowledge"	1991	41	-	-	-	-
104	van Leeuwen, Vermeulen and Glasbergen	"Planning eco-industrial parks: An analysis of Dutch planning methods"	2003	40	-	-	-	-
105	Hackett and Dilts	"Inside the black box of business incubation: Study B - Scale assessment, model refinement, and incubation outcomes"	2008	39	-	-	-	-
106	Sofouli and Vonortas	"S&T Parks and business incubators in middle-sized countries: The case of Greece"	2007	39	-	-	-	-
107	Greene and Butler	"The minority community as a natural business incubator"	1996	39	Yes	Yes	Yes	Yes
108	Marlow and Mcadam	"Analyzing the Influence of Gender Upon High-Technology Venturing Within the Context of Business Incubation"	2012	37	-	-	-	-
109	Dettwiler, Lindelöf and Löfsten	"Utility of location: A comparative survey between small new technology-based firms located on and off Science Parks - Implications for facilities management"	2006	37	-	-	-	-
110	Becker and Gassmann	"Gaining leverage effects from knowledge modes within corporate incubators"	2006	37	-	-	-	-
111	Wiggins and Gibson	"Overview of US incubators and the case of the Austin Technology Incubator"	2003	37	Yes	Yes	Yes	Yes
112	Tian, Liu, Lai, Li and Chen	"Study of the performance of eco-industrial park development in China"	2014	36	-	-	-	-
113	Almeida, Campello and Liu	"The financial accelerator: Evidence from international housing markets"	2006	36	-	-	-	-
114	Lee and Yang	"Cradle of Taiwan high technology industry development - Hsinchu Science Park (HSP)"	2000	36	-	-	-	-
115	Yu, De Jong, Dijkema	"Process analysis of eco-industrial park development - The case of Tianjin, China"	2014	35	Yes	-	-	-
116	Taskhiri, Tan and Chiu	"Energy-based fuzzy optimization approach for water reuse in an eco-industrial park"	2011	35	-	-	-	-
117	Bearse	"A question of evaluation: NBIA's impact assessment of business incubators"	1998	35	-	-	-	-
118	Meng, Chen and Wu	"A delay SIR epidemic model with pulse vaccination and incubation times"	2010	34	-	-	-	-
119	Eilering and Vermeulen	"Eco-industrial parks: toward industrial symbiosis and utility sharing in practice"	2004	34	-	-	-	-
120	Lalkaka	"Business incubators in developing countries: characteristics and performance"	2003	34	-	-	-	-
121	Taddeo, Simboli and Morgante	"Implementing eco-industrial parks in existing clusters. Findings from a historical Italian chemical site"	2012	33	-	-	-	-
122	Tsai, Hsieh, Fang and Lin	"The co-evolution of business incubation and national innovation systems in Taiwan"	2009	33	Yes	-	-	-
123	Malairaja and Zawdie	"Science parks and university-industry collaboration in Malaysia"	2008	33	-	-	-	-
124	Studdard	"The effectiveness of entrepreneurial firm's knowledge acquisition from a business incubator"	2006	33	Yes	-	-	-
125	Abdub, D'Souza, Quazi and Burley	"Investigating and classifying clients' satisfaction with business incubator services"	2007	32	Yes	Yes	Yes	Yes
126	Hsu, Shyu, Yu, Yuo and Lo	"Exploring the interaction between incubators and industrial clusters: The case of the ITRI incubator in Taiwan"	2003	32	-	-	-	-

Full systematic reference list (3/3).

No:	Authors:	Title:	Year:	Cited by:	'Service' in conjunction with 'incubator' in abstract:	'Incubator Services' presented in the form of a list, a table or	New (non-overlapping) information:
127	Vermeulen	"Business fixed investment: Evidence of a financial accelerator in Europe"	2002	32	-	-	-
128	Markley and Mcnamara	"Economic and Fiscal Impacts of a Business Incubator"	1995	32	Yes	-	-
129	Warren, Patton and Bream	"Knowledge acquisition processes during the incubation of new high technology firms"	2009	31	Yes	-	-
130	Appold	"Research parks and the location of industrial research laboratories: An analysis of the effectiveness of a policy intervention"	2004	31	-	-	-
131	Mody and Taylor	"The high-yield spread as a predictor of real economic activity: Evidence of a financial accelerator for the United States"	2003	31	-	-	-
132	Von Zedtwitz	"Classification and management of incubators: aligning strategic objectives and competitive scope for new business facilitation"	2003	31	Yes	Yes	Yes
133	Lindelöf and Löfsten	"Growth, management and financing of new technology-based firms-assessing value-added contributions of firms located on and off Science Parks"	2002	31	-	-	-
134	Bower	"Successful joint ventures in Science Parks"	1993	31	Yes	-	-
135	Tian, Shi, Chen and Chen	"Assessment of industrial metabolisms of sulfur in a Chinese fine chemical industrial park"	2012	30	-	-	-
136	Tiejun	"Two quantitative indices for the planning and evaluation of eco-industrial parks"	2010	30	-	-	-
137	Puu, Gardini and Sushko	"A Hicksian multiplier-accelerator model with floor determined by capital stock"	2005	30	-	-	-
138	Thierstein and Wilhelm	"Incubator, technology, and innovation centres in Switzerland: Features and policy implications"	2001	30	Yes	Yes	Yes
139	Adegbite	"Business Incubators and Small Enterprise Development: The Nigerian Experience"	2001	30	-	-	-
140	Irvine and Martin	"CERN: Past performance and future prospects. II. The scientific performance of the CERN accelerators"	1984	30	-	-	-
141	Soedjar and Shalley	"Multiple tasks' and multiple goals' effect on creativity: Forced incubation or just a distraction?"	2008	29	-	-	-
142	Feeser and Willard	"Incubators and performance: A comparison of high- and low-growth high-tech firms"	1989	29	-	-	-
143	Campbell and Allen	"The Small Business Incubator Industry: Micro-Level Economic Development"	1987	29	-	-	-
144	Qiu, Luo, Xu, Zhong and Huang	"Physical assets and service sharing for IoT-enabled Supply Hub in Industrial Park (SHIP)"	2015	28	-	-	-
145	Mas-Verdú, Ribeiro-Soriano and Roig-Tierno	"Firm survival: The role of incubators and business characteristics"	2015	27	-	-	-
146	Udell	"Are business incubators really creating new jobs by creating new business and new products?"	1990	27	Yes	Yes	Yes
147	Soetanto and Jack	"Business incubators and the networks of technology-based firms"	2011	26	Yes	-	-
148	Aaboen	"Explaining incubators using firm analogy"	2009	26	Yes	-	-
149	Voisey, Gornall, Jones and Thomas	"The measurement of success in a business incubation project"	2006	26	-	-	-
150	Sutherland	"China's science parks: Production bases or a tool for institutional reform?"	2005	26	-	-	-
151	Pereira	"State entrepreneurship and regional development: Singapore's industrial parks in Batam and Suzhou"	2004	26	-	-	-
152	Misrich and Smilor	"The university and business incubation: Technology transfer through entrepreneurial development"	1988	26	Yes	-	-
153	Goddard, Robertson and Vallance	"Universities, technology and innovation centres and regional development: The case of the North-East of England"	2012	25	-	-	-
154	Sonne	"Innovative initiatives supporting inclusive innovation in India: Social business incubation and micro venture capital"	2012	25	-	-	-
155	Busby and Hughes	"Projects, pathogens and incubation periods"	2004	25	-	-	-
156	Sternberg	"The impact of innovation centres on small technology-based firms: The example of the federal republic of Germany"	1990	25	Yes	-	-
157	Oakey	"British university science parks and high technology small firms: A comment on the potential for sustained industrial growth"	1985	25	-	-	-
158	Somsuk and Laosirihongthong	"A fuzzy AHP to prioritize enabling factors for strategic management of university business incubators: Resource-based view"	2014	24	Yes	-	-
159	Munir, Abdul Manan and Wan Alwi	"Holistic carbon planning for industrial parks: A waste-to-resources process integration approach"	2012	24	-	-	-
160	Barbero, Casillas, Ramos and Guitart	"Revisiting incubation performance. How incubator typology affects results?"	2012	24	-	-	-
161	Stein	"A culture of mania: A psychoanalytic view of the incubation of the 2008 credit crisis"	2011	24	-	-	-
162	Patton, Warren and Bream	"Elements that underpin high-tech business incubation processes"	2009	24	-	-	-
163	Kihlgren	"Promotion of innovation activity in Russia through the creation of science parks: The case of St. Petersburg (1992-1998)"	2003	24	Yes	-	-
164	Browne and Cruse	"The Incubation Effect: Illusion or illumination?"	1988	24	-	-	-
165	Yu, Han and Cui	"Evolution of industrial symbiosis in an eco-industrial park in China"	2015	23	-	-	-
166	Bai, Qiao, Yao and Guo	"Insights on the development progress of National Demonstration eco-industrial parks in China"	2014	23	-	-	-
167	Williams and Martinez	"Is the informal economy an incubator for new enterprise creation? A gender perspective"	2014	23	-	-	-
168	Christensen, Parsons and Fairbourne	"Building Entrepreneurship in Subsistence Markets: Microfranchising as an Employment Incubator"	2010	23	-	-	-
169	McAdam and Marlow	"A preliminary investigation into networking activities within the university incubator"	2008	23	Yes	Yes	-
170	Hytti and Mäki	"Which firms benefit most from the incubators?"	2007	23	Yes	Yes	Yes
171	Tsai, Wen and Chen	"Demand choices of high-tech industry for logistics service providers-an empirical case of an offshore science park in Taiwan"	2007	23	-	-	-
172	Ricchetti, Russo and Gallegati	"Leveraged network-based financial accelerator"	2013	21	-	-	-
173	Jung, Dodbiba, Chae and Fujita	"A novel approach for evaluating the performance of eco-industrial park pilot projects"	2013	22	-	-	-
174	Cooper, Hamel and Connaughton	"Motivations and obstacles to networking in a university business incubator"	2012	22	Yes	-	-
175	Elekdag, Justiniano and Tchakarov	"An estimated small open economy model of the financial accelerator"	2006	22	-	-	-
176	Chen and Choi	"Creating a knowledge-based city: The example of Hsinchu Science Park"	2004	22	-	-	-
177	Lehrer and Asakawa	"Offshore knowledge incubation: The ""third path"" for embedding R&D labs in foreign systems of innovation"	2002	22	-	-	-
178	Montastruc, Boix, Pibouleau, Azzaro-Pantel	"On the flexibility of an eco-industrial park (EIP) for managing industrial water"	2013	21	-	-	-
179	Vanderstraeten and Matthysens	"Service-based differentiation strategies for business incubators: Exploring external and internal alignment"	2012	21	Yes	Yes	Yes
180	McAdam, Galbraith, McAdam and Humphrey	"Business processes and networks in university incubators: A review and research agendas"	2006	21	Yes	-	-
181	Hannon	"Incubation policy and practice: Building practitioner and professional capability"	2005	21	-	-	-
182	Mody and Taylor	"Financial predictors of real activity and the financial accelerator"	2004	21	-	-	-
183	Klofsten, Jones-Evans and Schärberg	"Growing the Linköping Technopole - A longitudinal study of triple helix development in Sweden"	1999	21	-	-	-
184	Salvador	"Are science parks and incubators good ""brand names"" for spin-offs? The case study of Turin"	2011	20	-	-	-
185	Ollila and Williams-Middleton	"The venture creation approach: Integrating entrepreneurial education and incubation at the university"	2011	20	-	-	-
186	Squicciarini	"Science parks: Seedbeds of innovation? A duration analysis of firms' patenting activity"	2009	20	-	-	-
187	Leyden, Link and Siegel	"A theoretical and empirical analysis of the decision to locate on a university research park"	2008	20	-	-	-
188	Westerhoff	"Samuelson's multiplier-accelerator model revisited"	2006	20	-	-	-
189	Xue	"Promoting industrial R&D and high-tech development through science parks: The Taiwan experience and its implications for developing countries"	1997	20	-	-	-
190	McMullan and Melnyk	"University innovation centres and academic venture formation"	1988	20	-	-	-

Appendix 2. Timeline of literature on BI service offerings (1/4).

No:	Author(s):	Incubator typology:	Pre-categorization:	Categorization:	Services:	Additional information:
1	<i>Udell, 1990</i>	B) Academic, C) Private and E) Public	-	1) Physical/logistical services, 2) Shared office services and 3) Business consulting services	1) Physical/logistical services: Conference room, Building security, Furniture/equipment, Cafeteria/lunch room, Custodial/maintenance, Library. 2) Shared office services: Photocopier, Clerical, Mail service, Word processing, Shipping and receiving, Receptionist, Off-hours answering. 3) Business consulting services: Government grants and loans, Business plan preparation, Advertising and marketing, Relocation plans, Research and development, Accounting, Business taxes, Government procurement, Employee relations, Government regulations, Computing, Patent assistance, Legal services.	
2	<i>Greene and Butler, 1996</i>	No specific type, general overview	-	1) Shared office, 2) Management/technical and 3) Financing	1) Shared office: Conference room, Photocopying, Receptionist coverage, Word processing/typist, Security, Computer, Fax machine, Office equipment/furniture, Business library, Audio/visual equipment, Extra storage, Bookkeeping, Group health insurance. 2) Management/technical: Business plans, Marketing, Accounting, Government grants and loans, Legal services, Patent assistance, Computer training, International trade, Government procurement, Equity and debt financing, Access to sophisticated computer processing, Access to other resources outside the incubator, Research and development, Business taxes. 3) Financing: External aided, Internally provided (e.g. tenant revolving loan, tenant seed capital).	
3	<i>Mian, 1996</i>	B) Academic and D) Technology	-	1) Shared office space, 2) Shared office services, 3) Business assistance and 4) Inside and outside networking and 5) University related services	1) Shared office space + 2) Shared office services: Photocopier, Telephone, Facsimile (Fax), Conference room, Security, Receptionist, Custodial/maintenance, Computer, Shipping/receiving, Mail sorting, Word processing/clerical, Cafeteria/lunch room. 3) Business assistance and 4) Inside and outside networking: Government grants and loans, Business plan, Legal and government regulations, Tax assistance, Accessing outside capital, Marketing, Accounting, Personnel recruiting, Business connections outside the incubator, Business connections between tenants, Rent breaks.	University related services deliberately left out, due to scope of research. (5) University related services: Faculty consultants, Student employees, University image, Library services, Labs and workshops, Mainframe computers, Related R&D activity, Technology transfer programs, Employee education and training, Sports and social activity.)
4	<i>Hansen, Chesbrough, Nohria and Sull, 2000</i>	No specific type, general overview	-	1) Office space, 2) Coaching, 3) Funding, 4) Basic services and 5) Organized networks	4) Basic services: Information technology, Public relations, Recruiting, Legal, Accounting, Pooled buying programs (e.g. Media).	
5	<i>Thierstein and Wilhelm, 2001</i>	D) Technology	-	-	Consulting (e.g. start-up consulting, business consulting and technology consulting), Support of start-up phase, Support beyond start-up phase, Rental space (affordable below market rates), Joint amenities, Training and education.	

Timeline of literature on BI service offerings (2/4).

No:	Author(s):	Incubator typology:	Pre-categorization:	Categorization:	Services:	Additional information:
6	<i>Rice, 2002</i>	B) Academic and general overview	-	-	Group medical/dental insurance, Other types of insurance, Accounting/tax assistance, Legal/patent services, Business plans/strategic planning, Advice about team building, Cash flow management/general financial management, Sales/marketing/international trade, Government procurement contracts, Employment assistance, Assistance with government grants and loans, Incubator revolving loan fund, Incubator seed capital fund for tenant companies, Assistance to gain outside debt financing, Assistance to gain outside equity financing (v.c., angel or investment banking), R&D/product completion, Access to labs and libraries.	
7	<i>Phillips, 2002</i>	D) Technology	-	1) In-house services and 2) Services provided outside	1) In-house services: Access to labs and equipment, Sophisticated computer equipment, Help in obtaining equity financing, Clerical and receptionist services, Office equipment and furniture. 2) Services provided outside: Legal and patent services, Accounting and tax assistance, International trade assistance, Government contract procurement assistance.	
8	<i>Wiggins and Gibson, 2003</i>	No specific type, general overview	-	-	Assistance with business basics, Marketing assistance, Accounting/financial management, Investor and strategic partner linkages, Networking activities, Links to higher educational institution, Conference rooms and other shared facilities, Shared administrative services.	
9	<i>Von Zedtwitz, 2003</i>	No specific type, general overview	-	1) Access to physical resources, 2) Office support, 3) Access to financial resources, 4) Entrepreneurial start-up support and 5) Access to networks	1) Access to physical resources: Office space, Furniture, Sports facilities, A computer network, 24-h security and other amenities to do with physical infrastructure and real estate. 2) Office support: Secretarial and reception services, Mail handling, Fax and copying services, Computer network support, Book-keeping. 3) Access to financial resources: Access to business angels, venture capitalists or local institutions and companies. 4) Entrepreneurial start-up support: Help with business plan, Accounting, Legal advice, Management coaching support. 5) Access to internal and external networks: Facilitating business connections.	
10	<i>Grimaldi and Grandi, 2005</i>	No specific type, general overview	-	1) Logistic services, 2) Training, 3) Information advertisement for local visibility, 4) Access to technical and scientific knowledge and academic facilities, 5) Networking, 6) Day-by-day management support, 6) Advanced consulting services, 7) Funding.	-	

Timeline of literature on BI service offerings (3/4).

No:	Author(s):	Incubator typology:	Pre-categorization:	Categorization:	Services:	Additional information:
11	<i>Chan and Lau, 2005</i>	D) Technology	-	1) Pooling resources, 2) Sharing resources, 3) Consulting/counselling services, 4) Public image, 5) Networking, 6) Clustering, 7) Geographic proximity, 8) Costing and 9) Funding	<p>1) Pooling resources: Organising staff training and development activities, Marketing events, Exhibitions, Press conference. 2) Sharing resources: Sharing laboratory facilities, Office equipment, Testing equipment, Administrative support (e.g. meeting room, library, reception area). 3) Consulting/counselling services: Provision of legal, Accounting, Business, Technical advices at low cost (or free-of-charge). 4) Public image: Image of the Science Park/University/Government. 5) Networking: Access to clients/suppliers/subcontractors, Partnership opportunity with other technology firms within the incubator, Knowledge sharing/dissemination. 6) Clustering: Development of a pool of skilled labour, Externalities from logistics arrangement, Externalities from supporting network (e.g. emergence of complementary industry). 7) Geographic proximity: Access to: market, research centre, universities. 8) Costing: Rental subsidies, Subsidies on telecom/computer network access, Other subsidies related to cost reduction. 9) Funding: Access to venture capital (VC) funding, Banking facilities, Other funding sources.</p>	
12	<i>Abduh, D'Souza, Quazi and Burley, 2007</i>	No specific type, general overview	-	1) Facility related services, 2) Counselling related business services and 3) Networking related services (peer + external)	<p>1) Facility related services: Affordable space and building facilities, Credibility/visibility enhancement, Office equipment and Shared office services. 2) Counselling related business services: Assistance to gain government grants/loans, Sales/marketing, Referral, Training and education, General counselling/mentoring, Business plan and/or strategic planning, Financial management, R&D, Product development, Government procurements and regulations, Employment assistance, Legal/patent/intellectual property and Assistance to acquire outside debt/equity. 3) Networking related services (peer + external): Sharing information, experience and problems, Conducting business with other client(s), 3) External information and resources and Business related people</p>	
13	<i>Hytti and Mäki, 2007</i>	D) Technology	-	-	Premises and related services, Office services, Start-up services and consultation, Firm development services and consultation, R&D, Legal services (incl. accounting), Marketing and sales services and consultation, Financial services and consultation, Internationalisation services and consultation, Recruitment services, Mentoring services and other use of senior advisors, Networking services.	
14	<i>McAdam and Marlow, 2007</i>	B) Academic and D) Technology	-	1) Provision of physical infrastructure, 2) Clustering effect, 3) Credibility and image and 4) Access to professional networks	<p>1) Provision of physical infrastructure: Office space and facilities, Canteen, Secretarial services, Internet, Telephone, Fax services.</p>	
15	<i>Bergek and Norrman, 2008</i>	No specific type, general overview	Passive services ("Laissez-faire") and Intervening services (Strong intervention)	<p>Passive services ("Laissez-faire"): 1) Office space and 2) Office services). Intervening services (Strong intervention): 3) Networks and 4) Coaching</p>	<p>3) Networks: Network mediation and Institutional mediation. 4) Coaching: Entrepreneurial training and business development advice, Accounting, Legal matters, Advertising and Financial assistance</p>	

Timeline of literature on BI service offerings (4/4).

No:	Author(s):	Incubator typology:	Pre-categorization:	Categorization:	Services:	Additional information:
16	<i>Bruneel, Ratinho, Clarysse and Groen, 2012</i>	No specific type, general overview	First generation BI, Second generation BI and Third generation BI	First generation BI: 1) Infrastructure. Second generation BI: 1) Infrastructure and 2) Business support. Third generation BI: 1) Infrastructure, 2) Business support and 3) Network support	1) Infrastructure: Space and Shared resources. 2) Business support: Coaching/mentoring and Training to develop business skills. 3) Network support: Professional services providers and Seed or venture capital	
17	<i>Bellingtoft, 2012</i>	No specific type, general overview	-	1) Physical infrastructure, 2) Shared business-support services and 3) Network/networking	1) Physical infrastructure: Co-location of businesses, Flexible low priced office space, Shared equipment (e.g. Access to internet, printers, meeting rooms, etc.). 2) Shared business-support services: Access to shared support network or services (e.g. management assistance, advice or coaching). 3) Network/networking: Access to network/networking in order to compensate for lack of established networks.	Bottom-up incubator information left out, due to scope of research.
18	<i>Vanderstraeten and Matthysens, 2012 (1)</i>	No specific type, general overview	-	1) Administrative services, 2) Logistic services, 3) Business support services and 4) Networking	1) Administrative services: A common secretary (e.g. reception, telephone, postal delivery, welcoming visitors) and In-depth secretarial services (e.g. taking minutes, filing documents, organizing agendas, organizing business trips). 2) Logistic services: Basic equipment (e.g. flexible office space, internet connection, telephone line, photocopier). 3) Business support services: In-depth business support services (e.g. bookkeeping/accountancy ,IT.) 4) Networking: Access to venture capitalists, Access to bookkeepers, Access to lawyers, Access to other tenants and Personal network connection related to company's support activities.	
	<i>Vanderstraeten and Matthysens, 2012 (2)</i>	D) Technology	-	1) Administrative services, 2) Logistic services, 3) Business support services and 4) Networking	1) Administrative services: A common secretary (e.g. reception, telephone, postal delivery, welcoming visitors). 2) Logistic services: Basic equipment (e.g. office conference room) and Technology specific infrastructure (e.g. server room). 3) Business support services: In-depth business support services focusing on a company's operational activities, Sector- or technology-specific, in-depth business support services and On-site sector- or technology-specific in-depth business support services, such as knowledge centers. 4) Networking: Access to possible partners active in the company's operational activities, Access to possible partners in the same sector or field (both inside and outside the incubator) and Personal network connections related to the company's core business (e.g. funding organizations focussing on the company's core business)	

Appendix 3. Process for the categorization and formulation of support services.

Step 1: Categorization counts

No:	Category:	Categorization:	Author(s):	Count:
1	PHYSICAL INFRASTRUCTURE	Physical/logistical services, Shared office, Shared office space, Office space, Access to physical resources, Logistic services, Access to technical and scientific knowledge and academic facilities, Sharing resources, Facility related services, Provision of physical infrastructure, Infrastructure, Physical infrastructure, Logistic services	Udell, 1990; Greene and Butler, 1996; Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Von Zedtwitz, 2003; Grimaldi and Grandi, 2005; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; McAdam and Marlow, 2007; Bergek and Norrman, 2008; Bruneel, Ratinho, Clarysse and Groen, 2012; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1+2)	13
2	BUSINESS SUPPORT SERVICES	Business consulting services, Management/technical, Business assistance, Basic services, Coaching, Entrepreneurial start-up support, Training, Day-by-day management support, Advanced consulting services, Consulting/counselling services, Counselling related business services, Business support, Shared business-support services, Business support services	Udell, 1990; Greene and Butler, 1996; Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Von Zedtwitz, 2003; Grimaldi and Grandi, 2005; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Bergek and Norrman, 2008; Bruneel, Ratinho, Clarysse and Groen, 2012; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1+2)	12
3	NETWORKING	Inside and outside networking, Organized networks, Access to networks, Networking, Networking related services (peer + external), Access to professional networks, Networks, Network support, Network/networking	Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Von Zedtwitz, 2003; Grimaldi and Grandi, 2005; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; McAdam and Marlow, 2007; Bergek and Norrman, 2008; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1+2)	10
4	SHARED OFFICE SERVICES	Shared office services, Office support, Office services, Administrative services	Udell, 1990; Mian, 1996; Von Zedtwitz, 2003; Bergek and Norrman, 2008; Vanderstraeten and Matthyssens, 2012 (1+2)	5
5	FINANCING	Financing, Funding, Access to financial resources	Greene and Butler, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Von Zedtwitz, 2003; Grimaldi and Grandi, 2005; Chan and Lau, 2005	5
6	-	Information advertisement for local visibility, Public image, Credibility and image	Grimaldi and Grandi, 2005; Chan and Lau, 2005; McAdam and Marlow, 2007	3
7	-	Clustering, Clustering effect	Chan and Lau, 2005; McAdam and Marlow, 2007	2
8	-	In-house services	Phillips, 2002	1
9	-	Services provided outside	Phillips, 2002	1
10	-	Pooling resources	Chan and Lau, 2005	1
11	-	Geographical proximity	Chan and Lau, 2005	1
12	-	Costing	Chan and Lau, 2005	1

Step 2: Formulation of services for the identified 5 service categories by category

1) Physical infrastructure

Service:	Category: 1. PHYSICAL INFRASTRUCTURE	Author(s):
AFFORDABLE OFFICE SPACE	Rental space, Office space, Affordable space, Office space, Space, Flexible low priced office space, Flexible office space	Thierstein and Wilhelm, 2001; Von Zedtwitz, 2003; Abduh, D'Souza, Quazi and Burley, 2007; McAdam and Marlow, 2007; Bruneel, Ratinho, Clarysse and Groen, 2012; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1)
OFFICE EQUIPMENT/FURNITURE	Furniture/equipment, Office equipment/furniture, Office equipment and furniture, Furniture, Office equipment, Shared equipment, Basic equipment	Udell, 1990; Greene and Butler, 1996; Phillips, 2002; Von Zedtwitz, 2003; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1); Vanderstraeten and Matthyssens, 2012 (2)
	Telephone, Telephone line	Mian, 1996; McAdam and Marlow, 2007; Vanderstraeten and Matthyssens, 2012 (1); Vanderstraeten and Matthyssens, 2012 (2)
	Audio/visual equipment	Greene and Butler, 1996
	Computer, Internet, Access to internet, Internet connection	Greene and Butler, 1996; Mian, 1996; McAdam and Marlow, 2007; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1)
	Fax machine, Facsimile (Fax), Fax, Fax services	Greene and Butler, 1996; Mian, 1996; Von Zedtwitz, 2003; McAdam and Marlow, 2007
	Photocopier, Photocopying, Copying services, Printers	Udell, 1990; Greene and Butler, 1996; Mian, 1996; Von Zedtwitz, 2003; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (1)
	Joint amenities, Building facilities, Facilities, Co-location of businesses	Thierstein and Wilhelm, 2001; Von Zedtwitz, 2003; Abduh, D'Souza, Quazi and Burley, 2007; McAdam and Marlow, 2007; Bøllingtoft, 2012
CREDIBILITY/VISIBILITY ENHANCEMENT	Public image, Credibility/visibility enhancement,	Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007
CONFERENCE/MEETING ROOM	Conference room, Conference rooms and other shared facilities, Meeting room, Meeting rooms	Udell, 1990; Greene and Butler, 1996; Mian, 1996; Wiggins and Gibson, 2003; Chan and Lau, 2005; Bøllingtoft, 2012; Vanderstraeten and Matthyssens, 2012 (2)
CAFETERIA/LUNCH ROOM	Cafeteria/lunch room, Canteen	Udell, 1990; Mian, 1996; McAdam and Marlow, 2007
LIBRARY	Library, Business library, Access to Libraries	Udell, 1990; Greene and Butler, 1996; Rice, 2002; Chan and Lau, 2005
SPORTS FACILITIES	Sports facilities	Von Zedtwitz, 2003
TECHNOLOGY SPECIFIC INFRASTRUCTURE	Technology specific infrastructure	Vanderstraeten and Matthyssens, 2012 (2)
	Access to labs, Sharing laboratory facilities, Testing Equipment	Rice, 2002; Phillips, 2002; Chan and Lau, 2005
	Access to sophisticated computer processing, Sophisticated computer equipment	Greene and Butler, 1996; Phillips, 2002

2) Business support services

Service:	2. BUSINESS SUPPORT SERVICES	Author(s):
	Business consulting, Business, Training to develop business skills, In-depth business support services, Assistance with business basics, In-depth business support services focusing on a company's operational activities	<i>Thierstein and Wilhelm, 2001; Wiggins and Gibson, 2003; Chan and Lau, 2005; Bruneel, Ratinho, Clarysse and Groen, 2012; Vanderstraeten and Matthyssens, 2012 (2)</i>
	Firm development services and consultation, Business development advice	<i>Hytti and Mäki, 2007; Bergek and Norrman, 2008</i>
HELP WITH BUSINESS PLAN	Business plan preparation, Business plans, Business plan, Business plans/strategic planning, Help with business plan, Business plan and/or strategic planning	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Von Zedtwitz, 2003; Abduh, D'Souza, Quazi and Burley, 2007</i>
MARKETING/SALES	Advertising and marketing, Marketing, Marketing assistance, Sales/marketing, Marketing and sales services and consultation, Advertising	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Wiggins and Gibson, 2003; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008</i>
R&D (PRODUCT/SERVICE DEVELOPMENT)	Research and development, R&D/product development, R&D	<i>Udell, 1990; Greene and Butler, 1996; Rice, 2002; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007</i>
ACCOUNTING AND FINANCIAL MANAGEMENT	Accounting, Bookkeeping, Book-keeping, Cash flow management/general financial management, Accounting/financial management, Financial management, Financial services and consultation, Financial assistance, Bookkeeping/accountancy	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Phillips, 2002; Wiggins and Gibson, 2003; Von Zedtwitz, 2003; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008; Bergek and Norrman, 2008; Vanderstraeten and Matthyssens, 2012 (1)</i>
	Business taxes, Tax assistance	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Phillips, 2002</i>
LEGAL ADVICE	Legal services, Legal and government regulations, Legal, Legal advice, Legal matters	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Rice, 2002; Phillips, 2002; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008</i>
	Patent assistance, Patent services, Intellectual property	<i>Udell, 1990; Greene and Butler, 1996; Rice, 2002; Phillips, 2002; Abduh, D'Souza, Quazi and Burley, 2007</i>
	Government procurement, Government procurement contracts, Government contract procurement assistance, Government procurements and regulations	<i>Udell, 1990; Greene and Butler, 1996; Phillips, 2002; Abduh, D'Souza, Quazi and Burley, 2007</i>
HR MANAGEMENT/RECRUITING	Personnel recruiting, Recruiting, Employment assistance, Employment assistance, Recruitment services	<i>Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Rice, 2002; Hytti and Mäki, 2007</i>
	Advice about team building	<i>Rice, 2002</i>
PUBLIC RELATIONS/REFERRAL	Public relations, Referral	<i>Hansen, Chesbrough, Nohria and Sull, 2000; Abduh, D'Souza, Quazi and Burley, 2007</i>
MANAGEMENT ASSISTANCE	Management coaching support, Management assistance, advice or coaching	<i>Von Zedtwitz, 2003; Bøllingtoft, 2012</i>
	Technical consulting, Technical advices at low cost (or free-of-charge), Sector- or technology-specific	<i>Thierstein and Wilhelm, 2001; Chan and Lau, 2005; Vanderstraeten and Matthyssens, 2012 (2)</i>
INFORMATION TECHNOLOGY (IT)	Computing, Computer training, Information technology, IT	<i>Udell, 1990; Greene and Butler, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Vanderstraeten and Matthyssens, 2012 (1)</i>
WORKSHOPS, TRAINING AND EDUCATION	Training and education	<i>Thierstein and Wilhelm, 2001; Abduh, D'Souza, Quazi and Burley, 2007</i>
	Start-up consulting, start-up services and consultation, Entrepreneurial training	<i>Thierstein and Wilhelm, 2001; Hytti and Mäki, 2007; Bergek and Norrman, 2008</i>
COACHING/MENTORING	General counselling/mentoring, Mentoring services and other use of senior advisors, Coaching/mentoring	<i>Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bruneel, Ratinho, Clarysse and Groen, 2012</i>
POOLED BUYING PROGRAMS	Pooled buying programs	<i>Hansen, Chesbrough, Nohria and Sull, 2000; Chan and Lau, 2005</i>
HELP WITH RELOCATION	Relocation plans	<i>Udell, 1990</i>

3) Networking

Service:	3. NETWORKING	Author(s):
	Networking services, Network mediation, Access to network/networking in order to compensate for lack of established networks	<i>Hytti and Mäki, 2007; Bergek and Norrman, 2008; Bøllingtoft, 2012</i>
	Facilitating business connections	<i>Von Zedtwitz, 2003</i>
OUTSIDE BUSINESS CONNECTIONS	Business connections outside the incubator	<i>Mian, 1996</i>
BUSINESS CONNECTIONS BETWEEN TENANTS	Business connections between tenants, Partnership opportunity with other technology firms within the incubator, Conducting business with other clients, External business related people, Access to other tenants, Access to possible partners in the same sector or field (inside)	<i>Mian, 1996; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Vanderstraeten and Matthyssens, 2012 (1); Vanderstraeten and Matthyssens, 2012 (2)</i>
	Access to other resources outside the incubator, External resources	<i>Greene and Butler, 1996; Abduh, D'Souza, Quazi and Burley, 2007</i>
OUTSIDE STRATEGIC PARTNERS	Strategic partner linkages, Access to clients/suppliers/subcontractors, Access to possible partners active in the company's operational activities, Access to possible partners in the same sector or field (outside)	<i>Wiggins and Gibson, 2003; Chan and Lau, 2005; Vanderstraeten and Matthyssens, 2012 (2)</i>
ACCESS TO OUTSIDE BUSINESS SUPPORT SERVICE PROVIDERS	Professional service providers, Access to bookkeepers, lawyers	<i>Bruneel, Ratinho, Clarysse and Groen, 2012; Vanderstraeten and Matthyssens, 2012 (1)</i>
MEDIATION/LINKS WITH INSTITUTIONS SUCH AS UNIVERSITIES	Links to higher educational institution, Access to research centre/universities, Institutional mediation	<i>Wiggins and Gibson, 2003; Chan and Lau, 2005; Bergek and Norrman, 2008</i>
INFORMATION AND TECHNOLOGY TRANSFER	Knowledge sharing/dissemination, Sharing information, experiences and problems	<i>Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007</i>
ACCESS TO SKILLED WORKFORCE	Development of a pool of skilled labour	<i>Chan and Lau, 2005</i>

4) Shared office services

Service:	4. SHARED OFFICE SERVICES	Author(s):
	Premises related services	<i>Hytti and Mäki, 2007</i>
SECURITY	Building security, Security, 24-h security	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Von Zedtwitz, 2003</i>
CUSTODIAL/MAINTENANCE	Custodial/maintenance	<i>Udell, 1990; Mian, 1996</i>
EXTRA STORAGE	Extra storage	<i>Greene and Butler, 1996</i>
IT-RELATED SERVICES/NETWORK SUPPORT	Computer network (support)	<i>Von Zedtwitz, 2003</i>
	Clerical, Shared administrative services, Shared office services, Office services	<i>Udell, 1990; Mian, 1996; Phillips, 2002; Wiggins and Gibson, 2003; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007</i>
COMMON SECRETARY/RECEPTIONIST	Receptionist, Receptionist coverage, Receptionist services, Secretarial and reception services, Reception area, Secretarial services, Common secretary, In-depth secretarial services	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Phillips, 2002; Von Zedtwitz, 2003; Chan and Lau, 2005; McAdam and Marlow, 2007; Vanderstraeten and Matthyssens, 2012 (1); Vanderstraeten and Matthyssens, 2012 (2)</i>
	Mail service, Mail sorting, Mail handling, Postal delivery	<i>Udell, 1990; Mian, 1996; Von Zedtwitz, 2003; Vanderstraeten and Matthyssens, 2012 (2)</i>
	Word processing, Word processing/typist	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996</i>
	Shipping and receiving, Shipping/receiving	<i>Udell, 1990; Mian, 1996</i>
	Off-hours answering	<i>Udell, 1990</i>
GROUP INSURANCES	Group health insurance, Group medical/dental insurance, Other types of insurance	<i>Greene and Butler, 1996; Rice, 2002</i>

5) Financing

Service:	5. FINANCING	Author(s):
	Accessing outside capital, Investor linkages, Access to business angels, venture capitalists or local institutions and companies, Access to venture capital, Venture capital, Access to venture capitalists	<i>Mian, 1996; Wiggins and Gibson, 2003; Von Zedtwitz, 2003; Chan and Lau, 2005; Bruneel, Ratinho, Clarysse and Groen, 2012</i>
	Funding organizations focussing on the company's core business	<i>Vanderstraeten and Matthyssens, 2012 (2)</i>
EQUITY FINANCING	Equity financing, Help in obtaining equity financing, Assistance to acquire outside equity	<i>Greene and Butler, 1996; Phillips, 2002; Abduh, D'Souza, Quazi and Burley, 2007</i>
	Tenant seed capital, Incubator seed capital fund for tenant companies, Seed capital	<i>Greene and Butler, 1996; Rice, 2002; Bruneel, Ratinho, Clarysse and Groen, 2012</i>
DEBT FINANCING	Debt financing, Assistance to gain outside debt financing, Assistance to acquire outside equity	<i>Greene and Butler, 1996; Rice, 2002; Abduh, D'Souza, Quazi and Burley, 2007</i>
	Tenant revolving loan, Incubator revolving loan fund	<i>Greene and Butler, 1996; Rice, 2002</i>
ASSISTANCE WITH GOVERNMENT GRANTS AND LOANS	Government grants and loans, Assistance with government grants and loans, Assistance to gain government grants/loans	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Abduh, D'Souza, Quazi and Burley, 2007</i>
SUBSIDIES RELATED TO COST REDUCTION	Subsidies related to cost reduction	<i>Chan and Lau, 2005</i>
	Subsidies on telecom/computer network access	<i>Chan and Lau, 2005</i>
	Rent breaks, Rental subsidies	<i>Mian, 1996; Chan and Lau, 2005</i>

Appendix 4. Compelling literature overview with BI typology (1/2).

		Incubator typology:				
Pre-categorization:	Authors:	<i>Al-Mubarak and Busler, 2011</i>				
		First Generation BI		Second Generation BI		
Categorization:		Third Generation BI				
		Passive services ("Laissez-faire")		Intervening services (Strong intervention)		
Services:		1. PHYSICAL INFRASTRUCTURE	4. SHARED OFFICE SERVICES	2. BUSINESS SUPPORT SERVICES	3. NETWORKING	5. FINANCING
	<i>Thierstein and Wilhelm, 2001; Von Zedtwitz, 2003; Abduh, D'Souza, Quazi and Burley, 2007; McAdam and Marlow, 2007; Bruneel, Ratinho, Clarysse and Groen, 2012; Ballingtoft, 2012; Vanderstraeten and Matthysens, 2012 (1)</i>	B) Academic and D) Technology, No specific type, general overview	Affordable office space			
	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Phillips, 2002; Von Zedtwitz, 2003; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; McAdam and Marlow, 2007; Ballingtoft, 2012; Vanderstraeten and Matthysens, 2012 (1); Vanderstraeten and Matthysens, 2012 (2)</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Office equipment/furniture			
	<i>Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007</i>	D) Technology, No specific type, general overview	Credibility/visibility enhancement			
	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Wiggins and Gibson, 2003; Chan and Lau, 2005; Ballingtoft, 2012; Vanderstraeten and Matthysens, 2012 (2)</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Conference/meeting room			
	<i>Udell, 1990; Mian, 1996; McAdam and Marlow, 2007</i>	B) Academic, C) Private, D) Technology and E) Public	Cafeteria/lunch room			
	<i>Udell, 1990; Greene and Butler, 1996; Rice, 2002; Chan and Lau, 2005</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Library			
	<i>Von Zedtwitz, 2003</i>	No specific type, general overview	Sports facilities			
	<i>Greene and Butler, 1996; Rice, 2002; Phillips, 2002; Chan and Lau, 2005; Vanderstraeten and Matthysens, 2012 (2)</i>	B) Academic and D) Technology, No specific type, general overview	Technology specific infrastructure			
	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Von Zedtwitz, 2003</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Security			
	<i>Udell, 1990; Mian, 1996</i>	B) Academic, C) Private, D) Technology and E) Public	Custodial/maintenance			
	<i>Greene and Butler, 1996</i>	No specific type, general overview	Extra storage			
	<i>Von Zedtwitz, 2003</i>	No specific type, general overview	IT-related services/network support			
	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Phillips, 2002; Von Zedtwitz, 2003; Chan and Lau, 2005; McAdam and Marlow, 2007; Vanderstraeten and Matthysens, 2012 (1); Vanderstraeten and Matthysens, 2012 (2)</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Common secretary/receptionist			
	<i>Greene and Butler, 1996; Rice, 2002</i>	B) Academic and general overview	Group insurances			
	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Von Zedtwitz, 2003; Abduh, D'Souza, Quazi and Burley, 2007</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Help with business plan			
	<i>Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Wiggins and Gibson, 2003; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	Marketing/sales			
	<i>Udell, 1990; Greene and Butler, 1996; Rice, 2002; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007</i>	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview	R&D (product/service development)			

Compelling literature overview with BI typology (2/2).

		Incubator typology:				
Pre-categorization:	Authors:	Al-Mubarak and Busler, 2011				
	Bruneel, Ratinho, Clarysse and Groen, 2012	First Generation BI				
	Bergek and Norrman, 2008	Second Generation BI				
Categorization:		Passive services ("Laissez-faire")		Third Generation BI		
		Intervening services (Strong intervention)				
Services:		1. PHYSICAL INFRASTRUCTURE	4. SHARED OFFICE SERVICES	2. BUSINESS SUPPORT SERVICES	3. NETWORKING	5. FINANCING
		Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Phillips, 2002; Wiggins and Gibson, 2003; Von Zedtwitz, 2003; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008; Bergek and Norrman, 2008; Vanderstraeten and Matthyssens, 2012 (1)	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview		<ul style="list-style-type: none"> Accounting and financial management 	
	Udell, 1990; Greene and Butler, 1996; Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Rice, 2002; Phillips, 2002; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008	B) Academic, C) Private, D) Technology and E) Public, No specific type, general overview		<ul style="list-style-type: none"> Legal advice 		
	Mian, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Rice, 2002; Hytti and Mäki, 2007	B) Academic and D) Technology, No specific type, general overview		<ul style="list-style-type: none"> HR management/recruiting 		
	Hansen, Chesbrough, Nohria and Sull, 2000; Abduh, D'Souza, Quazi and Burley, 2007	No specific type, general overview		<ul style="list-style-type: none"> Public relations/referral 		
	Von Zedtwitz, 2003; Bøllingtoft, 2012	No specific type, general overview		<ul style="list-style-type: none"> Management assistance 		
	Udell, 1990; Greene and Butler, 1996; Hansen, Chesbrough, Nohria and Sull, 2000; Vanderstraeten and Matthyssens, 2012 (1)	B) Academic, C) Private and E) Public, No specific type, general overview		<ul style="list-style-type: none"> Information technology (IT) 		
	Thierstein and Wilhelm, 2001; Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bergek and Norrman, 2008	D) Technology, No specific type, general overview		<ul style="list-style-type: none"> Workshops, training and education 		
	Abduh, D'Souza, Quazi and Burley, 2007; Hytti and Mäki, 2007; Bruneel, Ratinho, Clarysse and Groen, 2012	D) Technology, No specific type, general overview		<ul style="list-style-type: none"> Coaching/mentoring 		
	Hansen, Chesbrough, Nohria and Sull, 2000; Chan and Lau, 2005	D) Technology, No specific type, general overview		<ul style="list-style-type: none"> Pooled buying programs 		
	Udell, 1990	B) Academic, C) Private and E) Public		<ul style="list-style-type: none"> Help with relocation 		
	Mian, 1996	B) Academic and D) Technology			<ul style="list-style-type: none"> Outside business connections 	
	Mian, 1996; Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007; Vanderstraeten and Matthyssens, 2012 (1); Vanderstraeten and Matthyssens, 2012 (2)	B) Academic and D) Technology, No specific type, general overview			<ul style="list-style-type: none"> Business connections between tenants 	
	Wiggins and Gibson, 2003; Chan and Lau, 2005; Vanderstraeten and Matthyssens, 2012 (2)	D) Technology, No specific type, general overview			<ul style="list-style-type: none"> Outside strategic partners 	
	Bruneel, Ratinho, Clarysse and Groen, 2012; Vanderstraeten and Matthyssens, 2012 (1)	No specific type, general overview			<ul style="list-style-type: none"> Access to outside business support service providers 	
	Wiggins and Gibson, 2003; Chan and Lau, 2005; Bergek and Norrman, 2008	D) Technology, No specific type, general overview			<ul style="list-style-type: none"> Mediation/links with institutions such as Universities 	
	Chan and Lau, 2005; Abduh, D'Souza, Quazi and Burley, 2007	D) Technology, No specific type, general overview			<ul style="list-style-type: none"> Information and technology transfer 	
	Chan and Lau, 2005	D) Technology, No specific type, general overview			<ul style="list-style-type: none"> Access to skilled workforce 	
	Greene and Butler, 1996; Rise, 2002; Phillips, 2002; Abduh, D'Souza, Quazi and Burley, 2007; Bruneel, Ratinho, Clarysse and Groen, 2012	B) Academic and D) Technology, No specific type, general overview				<ul style="list-style-type: none"> Equity financing
	Greene and Butler, 1996; Rice, 2002; Abduh, D'Souza, Quazi and Burley, 2007	B) Academic, No specific type, general overview				<ul style="list-style-type: none"> Debt financing
	Udell, 1990; Greene and Butler, 1996; Mian, 1996; Rice, 2002; Abduh, D'Souza, Quazi and Burley, 2007	B) Academic and D) Technology, No specific type, general overview				<ul style="list-style-type: none"> Assistance with government grants and loans
	Mian, 1996; Chan and Lau, 2005	B) Academic and D) Technology				<ul style="list-style-type: none"> Subsidies related to cost reduction

Appendix 5. Research studies and conceptual papers incorporating the Kano model (Rashid et al., 2010).

Author	Industry/ Fields	Model type
Kano et al. (1984)	technical products	A model of quality (Q)
Berger et al. (1993)	technical products	A model of customer requirements (CR)
Matzler et al. (1996)	sports products	A model of customer satisfaction(CS)
Sauerwein et al (1996)	to delight customer	A model of customer satisfaction(CS)
Vavra (1997)	conceptual paper on importance grid analysis	A model of quality (Q)
Huiskonen and Pirttila (1998)	customer service strategy planning	A model of production
Matzler and Hinterhuber (1998)	sports products	A model of customer satisfaction(CS)
Sauerwein (1999)	product design optimization	A model of product design
VonDran et al. (1999)	web site design	A model of quality (Q)
Tan et al. (1999)	IT (web page)	A model of quality (Q)
Rust and Oliver (2000)	delight for customer	A model of customer satisfaction(CS)
Martensen and Gronholdt (2001)	employee satisfaction	A model of quality (Q)
Ting and Chen (2002)	services (hypermarket) using regrssion analysis	A model of quality (Q)
Jane and Dominguez (2003a)	health care	A model of customer satisfaction(CS)
Rahman (2004)	bank services	A model of customer need(CN)
Lilja (2005)	focus on customer	A model of quality (Q)
Yang (2005)	technical products	A model of quality (Q)
MacDonald et al. (2006)	kano methods in product decision theory	A model of customer satisfaction(CS)
Zultner and Mazur (2006)	Using in QFD	A model of quality (Q)
Chen and Su (2006)	customer knowledge discovery for innovative PD	A model of product development (PD)
Au et al.(2006)	to foot wear design	A model of product design
Riviere et al. (2006)	an optimized preference analysis	A model of customer satisfaction(CS)
Emery (2006)	examination of faculty expectation	A model of customer satisfaction(CS)
Eskildsen and Kristensen (2006)	employee satisfaction	A model of customer satisfaction(CS)
Heo et al. (2007)	kano model to physical usability interaction (PUI)	A model of customer need(CN)
Rejeb et al. (2008)	to manage innovation project	A model of customer requirements (CR)
Lee et al.(2008)	product life management	A model of product development (PD)
Chen and Ko (2008)	a fuzzy nonlinear model	A model of quality (Q)
Chen and Chuang (2008)	computational approach	A model of customer need(CN)
Chang et al.(2009)	web personalization	A model of customer need(CN)
Lee and Huang (2009)	fuzzy mode	A model of quality (Q)
Raharjo et al. (2009)	kano model dynamics for multiple product design	A model of product design
Li et al.(2009)	imprecision of customer requirements	A model of product planning
Slevitch and Oh (2009)	attribute performance and CS	A model of customer satisfaction(CS)
Garibay et al.(2010)	evaluation of digital library	A model of quality (Q)
Xu et al. (2009)	analytical and computational approach	A model of customer need(CN)
Lin et al. (2010)	a moderated regression approach	A model of quality (Q)
Li et al.(2010)	CR in mature period PI	A model of product improvement (PI)
Chen et al.(2010)	home life industry innovation	A model of product design
Ullah and Tamaki (2010)	to simulate unknown customer answer	A method of customer need analysis

Appendix 6. 'Kano-questionnaire' (1/5).

KANO QUESTIONNAIRE:

PART 1: Background information tenant

INCUBATOR:
 COMPANY NAME:
 INDUSTRY:
 TEAM SIZE COMPANY:
 FIRM AGE:
 INCUBATION DURATION:
 ROLE/FUNCTION:
 ENTREPRENEURIAL EXPERIENCE IN YEARS:

PART 2: Question pairs (42)

1.	If the incubator provides affordable office space, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide you with affordable office space, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
2.	If office equipment (e.g. Printer)/furniture (e.g. Desk) is included, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If office equipment (e.g. Printer)/furniture (e.g. Desk) is not included, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
3.	If the incubator enhances the credibility/visibility of your business, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not enhance the credibility/visibility of your business, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
4.	If the incubator provides a conference room, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide a conference room, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
5.	If the incubator provides a cafeteria/lunch room, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide a cafeteria/lunch room, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
6.	If the incubator provides an in-house library, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide an in-house library, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
7.	If the incubator offers sports facilities (e.g. Gym), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer sports facilities (e.g. Gym), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

'Kano-questionnaire' (2/5).

8.	If the incubator offers technology specific infrastructure such as research laboratories, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer technology specific infrastructure such as research laboratories, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

9.	If the incubator provides security, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide security, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

10.	If the incubator deals with custodial/maintenance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not handle custodial/maintenance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

11.	If the incubator provides a possibility for extra storage, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide a possibility for extra storage, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

12.	If the incubator offers IT related service/network support, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer IT related service/network support, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

13.	If the incubator provides a common secretary/receptionist, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide a common secretary/receptionist, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

14.	If the incubator offers group insurances, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer group insurances, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

15.	If the incubator provides help with the business plan, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide help with the business plan, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

16.	If the incubator offers marketing/sales assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offersmarketing/sales assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

'Kano-questionnaire' (3/5).

17.	If the incubator offers R&D (product/service development) assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer R&D (product/service development) assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

18.	If the incubator offers accounting/financial management assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer accounting/financial management assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

19.	If the incubator provides legal advice, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide legal advice, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

20.	If the incubator provides help with HR management/recruiting, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide help with HR management/recruiting, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

21.	If the incubator provides help with public relations/referral, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide help with public relations/referral, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

22.	If the incubator provides management assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide management assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

23.	If the incubator offers information technology (IT) assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer information technology (IT) assistance, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

24.	If the incubator provides workshops, training and education, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide workshops, training and education, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

25.	If the incubator provides overall coaching/mentoring, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide overall coaching/mentoring, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

'Kano-questionnaire' (4/5).

26.	If the incubator offers pooled buying programs (e.g. Machinery, supply to attain economies of scale), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer pooled buying programs (e.g. Machinery, supply to attain economies of scale), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

27.	If the incubator offers help with relocation, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer help with relocation, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

28.	If the incubator helps in establishing outside business connections, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not assist in establishing outside business connections, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

29.	If the incubator facilitates business connections between tenants, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not facilitate business connections between tenants, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

30.	If the incubator provides access to outside strategic partners, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide access to outside strategic partners, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

31.	If the incubator provides access to outside business support service providers, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide access to outside business support service providers, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

32.	If the incubator provides mediation/links with institutions such as Universities, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide mediation/links with institutions such as Universities, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

33.	If the incubator provides information and technology transfer, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide information and technology transfer, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

34.	If the incubator provides access to a skilled workforce, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide access to a skilled workforce, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

'Kano-questionnaire' (5/5).

35.	If the incubator provides access to or sources of equity financing, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide access to or sources of equity financing, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

36.	If the incubator provides access to or sources of debt financing, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide access to or sources of debt financing, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

37.	If the incubator offers assistance to obtain government grants and loans, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer assistance to obtain government grants and loans, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

38.	If the incubator offers subsidies related to cost reduction (e.g. Rent breaks), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer subsidies related to cost reduction (e.g. Rent breaks) how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

39.	If the incubator boosts the creation of an intrapreneurial ecosystem, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not boost the creation of an intrapreneurial ecosystem, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

40.	If the incubator facilitates idea generation (e.g. Activities such as discussion sessions), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not facilitate idea generation (e.g. Activities such as discussion sessions), how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

41.	If the incubator provides a launching customer/distribution, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not provide a launching customer/distribution, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

42.	If the incubator offers a bread fund, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way
	If the incubator does not offer a bread fund, how do you feel?				
	I like it that way	It must be that way	I am neutral	I can live with it that way	I dislike it that way

Appendix 7. Kano evaluation table complete for overall findings.

No:	Tenant from incubator:	Company name:	s1:	s2:	s3:	s4:	s5:	s6:	s7:	s8:	s9:	s10:	s11:	s12:	s13:	s14:	s15:	s16:	s17:	s18:	s19:	s20:	s21:	s22:	s23:	s24:	s25:	s26:	s27:	s28:	s29:	s30:	s31:	s32:	s33:	s34:	s35:	s36:	s37:	s38:	s39:	s40:	s41:	s42:	
1	De Gasfabriek	CoolDutch	M	M	O	M	A	I	R	O	M	M	I	M	A	I	M	A	A	A	A	I	A	R	I	M	M	A	R	M	M	I	R	A	I	R	I	R	I	O	M	M	O	I	
2	De Gasfabriek	The Code crew	M	A	A	O	O	I	A	A	M	M	I	M	A	A	A	A	A	A	A	A	A	A	A	A	M	A	A	A	A	A	A	A	A	A	A	O	A	A	A	M	O	A	A
3	De Gasfabriek	Coinversable	M	R	M	M	I	I	I	O	A	A	I	M	A	A	I	A	A	O	A	A	M	A	I	A	M	A	A	O	M	O	A	O	A	A	O	A	O	O	O	A	M	M	
4	De Gasfabriek	Nomoni	M	M	O	A	I	A	A	M	A	A	A	I	A	I	O	I	M	M	I	M	A	O	A	M	I	A	M	M	A	I	I	O	A	A	A	A	A	M	O	A	A		
5	De Gasfabriek	Coinversable	M	A	A	A	A	I	I	O	M	A	I	M	I	A	M	A	A	A	A	I	A	I	A	A	M	I	I	O	A	A	I	I	I	A	A	A	I	A	O	A	A	A	
6	De Gasfabriek	Tijdlab	M	A	A	A	A	A	A	A	O	A	A	A	A	M	O	A	O	M	A	A	A	A	I	M	A	A	M	M	M	M	M	A	A	O	O	O	O	M	A	O	M		
7	De Gasfabriek	Lokaalloyaal	M	A	A	I	I	I	I	I	I	I	M	I	I	A	A	A	I	A	I	A	I	A	I	A	I	A	I	A	O	I	A	A	A	A	A	A	A	I	O	A	O	A	
8	De Gasfabriek	Brandeniers	I	I	O	I	I	I	I	I	I	I	M	O	A	O	I	I	I	I	I	A	I	I	O	M	M	I	M	M	M	I	I	I	A	I	I	I	I	M	M	M	A		
9	De Gasfabriek	Krabbel Communicatie & Tekst	O	I	M	A	O	I	I	I	I	M	M	A	A	A	O	M	I	I	I	R	R	I	I	A	O	A	R	M	I	I	O	I	I	I	I	I	I	I	M	A	A	A	
10	De Gasfabriek	De Procescartograaf	A	I	A	A	I	I	I	I	O	I	I	O	I	A	A	I	I	I	I	I	I	I	I	A	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
11	De Gasfabriek	Brandeniers	I	A	A	A	A	I	A	I	O	I	A	A	A	A	I	I	I	A	A	I	A	A	A	O	I	I	A	A	I	I	I	I	I	A	I	I	A	A	A	A	A	A	
12	De Gasfabriek	Previsual	O	I	I	O	I	I	R	A	O	A	M	M	I	M	M	O	I	M	M	I	M	A	I	M	M	A	R	M	M	M	O	A	A	A	A	R	A	A	M	M	A	A	
13	ACE/Startup Village	Interclass B.V.	A	I	O	A	A	A	A	I	O	A	A	O	I	M	M	M	A	M	M	I	I	I	A	A	M	I	I	M	A	A	A	M	O	A	M	M	M	A	A	A	A	A	
14	ACE/Startup Village	Interclass B.V.	O	O	O	I	I	I	R	M	O	I	I	I	I	O	O	M	M	M	M	O	A	A	O	O	I	I	O	I	O	I	I	I	I	I	I	I	I	M	O	M	M	I	I
15	ACE/Startup Village	ConnActive Care	A	A	A	A	A	A	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
16	ACE/Startup Village	241 Software Solutions	M	A	A	A	I	I	I	I	M	I	I	O	I	A	M	O	O	O	M	M	A	A	A	A	A	I	I	I	I	A	I	I	I	A	I	I	I	I	I	I	I	I	I
17	ACE/Startup Village	Holofil	M	A	M	I	A	A	A	O	M	O	A	M	I	A	A	A	A	A	A	I	A	M	M	A	A	A	A	O	M	O	I	O	A	A	I	I	M	M	M	M	M	A	
18	ACE/Startup Village	My Reputation Lab	I	A	I	A	A	I	A	I	I	I	M	I	I	O	M	I	I	M	I	O	O	I	I	I	M	A	O	A	O	I	I	I	I	I	I	A	A	I	A	I	I	I	
19	ACE/Startup Village	My Reputation Lab	M	M	O	M	A	I	A	A	M	A	A	M	I	I	A	A	A	A	I	O	I	I	I	O	O	I	I	A	O	O	O	O	I	A	I	I	O	O	I	O	O	I	
20	ACE/Startup Village	Holofil	O	O	O	O	A	I	I	I	M	M	O	O	I	I	M	O	A	A	A	I	I	I	I	M	I	A	O	M	M	O	A	I	I	M	M	M	M	A	M	I	A		
21	ACE/Startup Village	Umance	O	I	A	O	M	I	R	A	M	A	A	M	I	I	A	A	A	A	A	A	A	A	A	A	A	A	A	A	M	A	I	A	I	A	A	A	A	A	I	I	A	A	
22	ACE/Startup Village	Aiir Innovation	A	I	O	O	I	I	I	I	O	I	A	I	I	O	M	I	I	I	I	M	I	I	O	O	I	I	I	A	M	I	I	I	A	I	I	A	A	A	A	I	I	I	
23	ACE/Startup Village	Proof of the sum	A	I	M	A	A	I	A	I	M	I	A	M	I	A	O	A	I	A	M	I	M	I	A	A	I	I	A	O	M	A	O	A	I	A	I	I	A	A	A	A	A	I	
24	ACE/Startup Village	Metrica Sports	M	I	O	I	A	I	A	I	M	O	I	M	I	I	A	I	I	A	A	I	I	A	I	A	A	I	A	O	M	I	O	A	I	A	A	I	I	A	I	A	A	I	

Appendix 8. Preliminary table of results for overall findings (in counts).

BI service offerings:	A:	O:	M:	I:	R:	Q:	Total:	Category:
1. PHYSICAL INFRASTRUCTURE								
Affordable office space (s1):	5	5	11	3	0	0	24	M
Office equipment/furniture (s2):	9	2	3	9	1	0	24	A/I
Credibility/visibility enhancement (s3):	9	9	4	2	0	0	24	A/O
Conference/meeting room (s4):	11	5	3	5	0	0	24	A
Cafeteria/lunch room (s5):	12	2	1	9	0	0	24	A
Library (s6):	5	0	0	19	0	0	24	I
Sports facilities (s7):	10	0	0	10	4	0	24	A/I
Technology specific infrastructure (s8):	5	4	2	13	0	0	24	I
4. SHARED OFFICE SERVICES								
Security (s9):	2	6	10	6	0	0	24	M
Custodial/maintenance (s10):	8	3	4	9	0	0	24	I
Extra storage (s11):	8	1	2	13	0	0	24	I
IT-related services/network support (s12):	5	4	13	2	0	0	24	M
Common secretary/receptionist (s13):	6	1	0	17	0	0	24	I
Group insurances (s14):	12	0	2	10	0	0	24	A
2. BUSINESS SUPPORT SERVICES								
Help with business plan (s15):	7	5	7	5	0	0	24	A/M
Marketing/sales (s16):	9	7	3	5	0	0	24	A
R&D (product/service development) (s17):	11	1	2	10	0	0	24	A
Accounting and financial management (s18):	10	3	4	7	0	0	24	A
Legal advice (s19):	10	0	7	7	0	0	24	A
HR management/recruiting (s20):	4	1	3	15	1	0	24	I
Public relations/referral (s21):	10	1	5	7	1	0	24	A
Management assistance (s22):	10	1	1	11	1	0	24	I
Information technology (IT) (s23):	10	2	1	11	0	0	24	I
Workshops, training and education (s24):	12	5	2	5	0	0	24	A
Coaching/mentoring (s25):	5	4	10	5	0	0	24	M
Pooled buying programs (s26):	8	0	1	15	0	0	24	I
Help with relocation (s27):	10	0	1	10	3	0	24	A/I
3. NETWORKING								
Outside business connections (s28):	6	7	7	4	0	0	24	O/M
Business connections between tenants (s29):	5	2	11	6	0	0	24	M
Outside strategic partners (s30):	8	5	5	6	0	0	24	A
Access to outside business support service providers (s31):	3	7	1	12	1	0	24	I
Mediation/links with institutions such as Universities (s32):	8	3	2	11	0	0	24	I
Information and technology transfer (s33):	6	2	0	16	0	0	24	I
Access to skilled workforce (s34):	17	0	0	6	1	0	24	A
5. FINANCING								
Equity financing (s35):	6	3	2	13	0	0	24	I
Debt financing (s36):	6	1	2	13	2	0	24	I
Assistance with government grants and loans (s37):	9	3	4	8	0	0	24	A
Subsidies related to cost reduction (s38):	11	5	2	6	0	0	24	Q
6. RESULTS OF THE QUALITATIVE INTERVIEWS								
Creation of an (intrapreneurial) eco-system (s39):	5	3	9	7	0	0	24	M
Idea generation (s40):	10	3	6	5	0	0	24	A
Provision of a launching customer/distribution (s41):	10	4	3	7	0	0	24	A
Bread fund (s42):	12	0	2	10	0	0	24	A

Appendix 9. Complete table of results for overall findings (including distribution in % and CS coefficients).

	A:	O:	M:	I:	R:	Q:	Total:	Category:	A+O ----- A+O+M+I	O+M ----- (A+O+M+I) * (-1)
BI service offerings:										
1. PHYSICAL INFRASTRUCTURE										
Affordable office space (s1):	20,83%	20,83%	45,83%	12,50%	0,00%	0,00%	100%	M	0,42	-0,67
Office equipment/furniture (s2):	37,50%	8,33%	12,50%	37,50%	4,17%	0,00%	100%	A/I	0,48	-0,20
Credibility/visibility enhancement (s3):	37,50%	37,50%	16,67%	8,33%	0,00%	0,00%	100%	A/O	0,75	-0,54
Conference/meeting room (s4):	45,83%	20,83%	12,50%	20,83%	0,00%	0,00%	100%	A	0,67	-0,33
Cafeteria/lunch room (s5):	50,00%	8,33%	4,17%	37,50%	0,00%	0,00%	100%	A	0,58	-0,13
Library (s6):	20,83%	0,00%	0,00%	79,17%	0,00%	0,00%	100%	I	0,21	0,00
Sports facilities (s7):	41,67%	0,00%	0,00%	41,67%	16,67%	0,00%	100%	A/I	0,50	0,00
Technology specific infrastructure (s8):	20,83%	16,67%	8,33%	54,17%	0,00%	0,00%	100%	I	0,38	-0,25
4. SHARED OFFICE SERVICES										
Security (s9):	8,33%	25,00%	41,67%	25,00%	0,00%	0,00%	100%	M	0,33	-0,67
Custodial/maintenance (s10):	33,33%	12,50%	16,67%	37,50%	0,00%	0,00%	100%	I	0,46	-0,29
Extra storage (s11):	33,33%	4,17%	8,33%	54,17%	0,00%	0,00%	100%	I	0,38	-0,13
IT-related services/network support (s12):	20,83%	16,67%	54,17%	8,33%	0,00%	0,00%	100%	M	0,38	-0,71
Common secretary/receptionist (s13):	25,00%	4,17%	0,00%	70,83%	0,00%	0,00%	100%	I	0,29	-0,04
Group insurances (s14):	50,00%	0,00%	8,33%	41,67%	0,00%	0,00%	100%	A	0,50	-0,08
2. BUSINESS SUPPORT SERVICES										
Help with business plan (s15):	29,17%	20,83%	29,17%	20,83%	0,00%	0,00%	100%	A/M	0,50	-0,50
Marketing/sales (s16):	37,50%	29,17%	12,50%	20,83%	0,00%	0,00%	100%	A	0,67	-0,42
R&D (product/service development) (s17):	45,83%	4,17%	8,33%	41,67%	0,00%	0,00%	100%	A	0,50	-0,13
Accounting and financial management (s18):	41,67%	12,50%	16,67%	29,17%	0,00%	0,00%	100%	A	0,54	-0,29
Legal advice (s19):	41,67%	0,00%	29,17%	29,17%	0,00%	0,00%	100%	A	0,42	-0,29
HR management/recruiting (s20):	16,67%	4,17%	12,50%	62,50%	4,17%	0,00%	100%	I	0,22	-0,16
Public relations/referral (s21):	41,67%	4,17%	20,83%	29,17%	4,17%	0,00%	100%	A	0,48	-0,24
Management assistance (s22):	41,67%	4,17%	4,17%	45,83%	4,17%	0,00%	100%	I	0,48	-0,08
Information technology (IT) (s23):	41,67%	8,33%	4,17%	45,83%	0,00%	0,00%	100%	I	0,50	-0,13
Workshops, training and education (s24):	50,00%	20,83%	8,33%	20,83%	0,00%	0,00%	100%	A	0,71	-0,29
Coaching/mentoring (s25):	20,83%	16,67%	41,67%	20,83%	0,00%	0,00%	100%	M	0,38	-0,58
Pooled buying programs (s26):	33,33%	0,00%	4,17%	62,50%	0,00%	0,00%	100%	I	0,33	-0,04
Help with relocation (s27):	41,67%	0,00%	4,17%	41,67%	12,50%	0,00%	100%	A/I	0,48	-0,04
3. NETWORKING										
Outside business connections (s28):	25,00%	29,17%	29,17%	16,67%	0,00%	0,00%	100%	O/M	0,54	-0,58
Business connections between tenants (s29):	20,83%	8,33%	45,83%	25,00%	0,00%	0,00%	100%	M	0,29	-0,54
Outside strategic partners (s30):	33,33%	20,83%	20,83%	25,00%	0,00%	0,00%	100%	A	0,54	-0,42
Access to outside business support service providers (s31):	12,50%	29,17%	4,17%	50,00%	4,17%	0,00%	100%	I	0,43	-0,32
Mediation/links with institutions such as Universities (s32):	33,33%	12,50%	8,33%	45,83%	0,00%	0,00%	100%	I	0,46	-0,21
Information and technology transfer (s33):	25,00%	8,33%	0,00%	66,67%	0,00%	0,00%	100%	I	0,33	-0,08
Access to skilled workforce (s34):	70,83%	0,00%	0,00%	25,00%	4,17%	0,00%	100%	A	0,74	0,00
5. FINANCING										
Equity financing (s35):	25,00%	12,50%	8,33%	54,17%	0,00%	0,00%	100%	I	0,38	-0,21
Debt financing (s36):	25,00%	4,17%	8,33%	54,17%	8,33%	0,00%	100%	I	0,32	-0,11
Assistance with government grants and loans (s37):	37,50%	12,50%	16,67%	33,33%	0,00%	0,00%	100%	A	0,50	-0,29
Subsidies related to cost reduction (s38):	45,83%	20,83%	8,33%	25,00%	0,00%	0,00%	100%	A	0,67	-0,29
6. RESULTS OF THE QUALITATIVE INTERVIEWS										
Creation of an (intrapreneurial) eco-system (s39):	20,83%	12,50%	37,50%	29,17%	0,00%	0,00%	100%	M	0,33	-0,50
Idea generation (s40):	41,67%	12,50%	25,00%	20,83%	0,00%	0,00%	100%	A	0,54	-0,38
Provision of a launching customer/distribution (s41):	41,67%	16,67%	12,50%	29,17%	0,00%	0,00%	100%	A	0,58	-0,29
Bread fund (s42):	50,00%	0,00%	8,33%	41,67%	0,00%	0,00%	100%	A	0,50	-0,08

Appendix 10. CS coefficients of all services for the overall findings.

BI service offerings:	Overall (24)		
	Attribute category:	Satisfaction:	Dissatisfaction:
1. PHYSICAL INFRASTRUCTURE			
Affordable office space (s1):	M	0,42	** -0,67
Office equipment/furniture (s2):	A/I	0,48	-0,20
Credibility/visibility enhancement (s3):	A/O	**0,75	-0,54
Conference/meeting room (s4):	A	0,67	-0,33
Cafeteria/lunch room (s5):	A	0,58	-0,13
Library (s6):	I	0,21	0,00
Sports facilities (s7):	A/I	0,50	0,00
Technology specific infrastructure (s8):	I	0,38	-0,25
4. SHARED OFFICE SERVICES			
Security (s9):	M	0,33	** -0,67
Custodial/maintenance (s10):	I	0,46	-0,29
Extra storage (s11):	I	0,38	-0,13
IT-related services/network support (s12):	M	0,38	** -0,71
Common secretary/receptionist (s13):	I	0,29	-0,04
Group insurances (s14):	A	0,50	-0,08
2. BUSINESS SUPPORT SERVICES			
Help with business plan (s15):	A/M	0,50	-0,50
Marketing/sales (s16):	A	0,67	-0,42
R&D (product/service development) (s17):	A	0,50	-0,13
Accounting and financial management (s18):	A	0,54	-0,29
Legal advice (s19):	A	0,42	-0,29
HR management/recruiting (s20):	I	0,22	-0,16
Public relations/referral (s21):	A	0,48	-0,24
Management assistance (s22):	I	0,48	-0,08
Information technology (IT) (s23):	I	0,50	-0,13
Workshops, training and education (s24):	A	**0,71	-0,29
Coaching/mentoring (s25):	M	0,38	-0,58
Pooled buying programs (s26):	I	0,33	-0,04
Help with relocation (s27):	A/I	0,48	-0,04
3. NETWORKING			
Outside business connections (s28):	O/M	0,54	-0,58
Business connections between tenants (s29):	M	0,29	-0,54
Outside strategic partners (s30):	A	0,54	-0,42
Access to outside business support service providers (s31):	I	0,43	-0,32
Mediation/links with institutions such as Universities (s32):	I	0,46	-0,21
Information and technology transfer (s33):	I	0,33	-0,08
Access to skilled workforce (s34):	A	**0,74	0,00
5. FINANCING			
Equity financing (s35):	I	0,38	-0,21
Debt financing (s36):	I	0,32	-0,11
Assistance with government grants and loans (s37):	A	0,50	-0,29
Subsidies related to cost reduction (s38):	A	0,67	-0,29
6. RESULTS OF THE QUALITATIVE INTERVIEWS			
Creation of an (intrapreneurial) eco-system (s39):	M	0,33	-0,50
Idea generation (s40):	A	0,54	-0,38
Provision of a launching customer/distribution (s41):	A	0,58	-0,29
Bread fund (s42):	A	0,50	-0,08

** = Highest three CS coefficients overall

A = Attractive
I = Indifferent

M = Must be
R = Reverse

O = One-dimensional
Q = Questionable

Appendix 11. Complete table of results for ‘De Gasfabriek’ (including distribution in % and CS coefficients).

	A:	O:	M:	I:	R:	Q:	Total:	Category:	A+O ----- A+O+M+I	O+M ----- (A+O+M+I) * (-1)
BI service offerings:										
1. PHYSICAL INFRASTRUCTURE										
Affordable office space (s1):	8,33%	16,67%	58,33%	16,67%	0,00%	0,00%	100%	M	0,25	-0,75
Office equipment/furniture (s2):	41,67%	0,00%	16,67%	33,33%	8,33%	0,00%	100%	A	0,45	-0,15
Credibility/visibility enhancement (s3):	50,00%	25,00%	16,67%	8,33%	0,00%	0,00%	100%	A	0,75	-0,42
Conference/meeting room (s4):	50,00%	16,67%	16,67%	16,67%	0,00%	0,00%	100%	A	0,67	-0,33
Cafeteria/lunch room (s5):	33,33%	16,67%	0,00%	50,00%	0,00%	0,00%	100%	I	0,50	-0,17
Library (s6):	16,67%	0,00%	0,00%	83,33%	0,00%	0,00%	100%	I	0,17	0,00
Sports facilities (s7):	33,33%	0,00%	0,00%	50,00%	16,67%	0,00%	100%	I	0,40	0,00
Technology specific infrastructure (s8):	25,00%	25,00%	8,33%	41,67%	0,00%	0,00%	100%	I	0,50	-0,33
4. SHARED OFFICE SERVICES										
Security (s9):	16,67%	33,33%	25,00%	25,00%	0,00%	0,00%	100%	O	0,50	-0,58
Custodial/maintenance (s10):	41,67%	0,00%	25,00%	33,33%	0,00%	0,00%	100%	A	0,42	-0,25
Extra storage (s11):	25,00%	0,00%	16,67%	58,33%	0,00%	0,00%	100%	I	0,25	-0,17
IT-related services/network support (s12):	33,33%	8,33%	58,33%	0,00%	0,00%	0,00%	100%	M	0,42	-0,67
Common secretary/receptionist (s13):	50,00%	8,33%	0,00%	41,67%	0,00%	0,00%	100%	A	0,58	-0,08
Group insurances (s14):	75,00%	0,00%	8,33%	16,67%	0,00%	0,00%	100%	A	0,75	-0,08
2. BUSINESS SUPPORT SERVICES										
Help with business plan (s15):	25,00%	16,67%	33,33%	25,00%	0,00%	0,00%	100%	M	0,42	-0,50
Marketing/sales (s16):	41,67%	25,00%	8,33%	25,00%	0,00%	0,00%	100%	A	0,67	-0,33
R&D (product/service development) (s17):	50,00%	0,00%	0,00%	50,00%	0,00%	0,00%	100%	A/I	0,50	0,00
Accounting and financial management (s18):	33,33%	16,67%	16,67%	33,33%	0,00%	0,00%	100%	A/I	0,50	-0,33
Legal advice (s19):	50,00%	0,00%	25,00%	25,00%	0,00%	0,00%	100%	A	0,50	-0,25
HR management/recruiting (s20):	25,00%	0,00%	0,00%	66,67%	8,33%	0,00%	100%	I	0,27	0,00
Public relations/referral (s21):	58,33%	0,00%	25,00%	8,33%	8,33%	0,00%	100%	A	0,64	-0,23
Management assistance (s22):	50,00%	0,00%	0,00%	41,67%	8,33%	0,00%	100%	A	0,55	0,00
Information technology (IT) (s23):	41,67%	8,33%	0,00%	50,00%	0,00%	0,00%	100%	I	0,50	-0,08
Workshops, training and education (s24):	50,00%	16,67%	16,67%	16,67%	0,00%	0,00%	100%	A	0,67	-0,33
Coaching/mentoring (s25):	8,33%	8,33%	66,67%	16,67%	0,00%	0,00%	100%	M	0,17	-0,75
Pooled buying programs (s26):	50,00%	0,00%	8,33%	41,67%	0,00%	0,00%	100%	A	0,50	-0,08
Help with relocation (s27):	41,67%	0,00%	0,00%	33,33%	25,00%	0,00%	100%	A	0,56	0,00
3. NETWORKING										
Outside business connections (s28):	25,00%	16,67%	50,00%	8,33%	0,00%	0,00%	100%	M	0,42	-0,67
Business connections between tenants (s29):	25,00%	0,00%	50,00%	25,00%	0,00%	0,00%	100%	M	0,25	-0,50
Outside strategic partners (s30):	25,00%	16,67%	25,00%	33,33%	0,00%	0,00%	100%	I	0,42	-0,42
Access to outside business support service providers (s31):	16,67%	16,67%	8,33%	50,00%	8,33%	0,00%	100%	I	0,36	-0,23
Mediation/links with institutions such as Universities (s32):	33,33%	8,33%	8,33%	50,00%	0,00%	0,00%	100%	I	0,42	-0,17
Information and technology transfer (s33):	41,67%	8,33%	0,00%	50,00%	0,00%	0,00%	100%	I	0,50	-0,08
Access to skilled workforce (s34):	75,00%	0,00%	0,00%	16,67%	8,33%	0,00%	100%	A	0,82	0,00
5. FINANCING										
Equity financing (s35):	33,33%	25,00%	0,00%	41,67%	0,00%	0,00%	100%	I	0,58	-0,25
Debt financing (s36):	41,67%	8,33%	0,00%	33,33%	16,67%	0,00%	100%	A	0,60	-0,07
Assistance with government grants and loans (s37):	41,67%	16,67%	0,00%	41,67%	0,00%	0,00%	100%	A/I	0,58	-0,17
Subsidies related to cost reduction (s38):	41,67%	25,00%	0,00%	33,33%	0,00%	0,00%	100%	A	0,67	-0,25
6. RESULTS OF THE QUALITATIVE INTERVIEWS										
Creation of an (intrapreneurial) eco-system (s39):	8,33%	25,00%	58,33%	8,33%	0,00%	0,00%	100%	M	0,33	-0,83
Idea generation (s40):	50,00%	16,67%	25,00%	8,33%	0,00%	0,00%	100%	A	0,67	-0,42
Provision of a launching customer/distribution (s41):	50,00%	25,00%	16,67%	8,33%	0,00%	0,00%	100%	A	0,75	-0,42
Bread fund (s42):	66,67%	0,00%	16,67%	16,67%	0,00%	0,00%	100%	A	0,67	-0,17

Appendix 12. Complete table of results for 'Ace Incubator / Startup Village' (including distribution in % and CS coefficients).

	A:	O:	M:	I:	R:	Q:	Total:	Category:	A+O ----- A+O+M+I	O+M ----- (A+O+M+I) * (-1)
BI service offerings:										
1. PHYSICAL INFRASTRUCTURE										
Affordable office space (s1):	33,33%	25,00%	33,33%	8,33%	0,00%	0,00%	100%	A/M	0,58	-0,58
Office equipment/furniture (s2):	33,33%	16,67%	8,33%	41,67%	0,00%	0,00%	100%	I	0,50	-0,25
Credibility/visibility enhancement (s3):	25,00%	50,00%	16,67%	8,33%	0,00%	0,00%	100%	O	0,75	-0,67
Conference/meeting room (s4):	41,67%	25,00%	8,33%	25,00%	0,00%	0,00%	100%	A	0,67	-0,33
Cafeteria/lunch room (s5):	66,67%	0,00%	8,33%	25,00%	0,00%	0,00%	100%	A	0,67	-0,08
Library (s6):	25,00%	0,00%	0,00%	75,00%	0,00%	0,00%	100%	I	0,25	0,00
Sports facilities (s7):	50,00%	0,00%	0,00%	33,33%	16,67%	0,00%	100%	A	0,60	0,00
Technology specific infrastructure (s8):	16,67%	8,33%	8,33%	66,67%	0,00%	0,00%	100%	I	0,25	-0,17
4. SHARED OFFICE SERVICES										
Security (s9):	0,00%	16,67%	58,33%	25,00%	0,00%	0,00%	100%	M	0,17	-0,75
Custodial/maintenance (s10):	25,00%	25,00%	8,33%	41,67%	0,00%	0,00%	100%	I	0,50	-0,33
Extra storage (s11):	41,67%	8,33%	0,00%	50,00%	0,00%	0,00%	100%	I	0,50	-0,08
IT-related services/network support (s12):	8,33%	25,00%	50,00%	16,67%	0,00%	0,00%	100%	M	0,33	-0,75
Common secretary/receptionist (s13):	0,00%	0,00%	0,00%	100,00%	0,00%	0,00%	100%	I	0,00	0,00
Group insurances (s14):	25,00%	0,00%	8,33%	66,67%	0,00%	0,00%	100%	I	0,25	-0,08
2. BUSINESS SUPPORT SERVICES										
Help with business plan (s15):	33,33%	25,00%	25,00%	16,67%	0,00%	0,00%	100%	A	0,58	-0,50
Marketing/sales (s16):	33,33%	33,33%	16,67%	16,67%	0,00%	0,00%	100%	A/O	0,67	-0,50
R&D (product/service development) (s17):	41,67%	8,33%	16,67%	33,33%	0,00%	0,00%	100%	A	0,50	-0,25
Accounting and financial management (s18):	50,00%	8,33%	16,67%	25,00%	0,00%	0,00%	100%	A	0,58	-0,25
Legal advice (s19):	33,33%	0,00%	33,33%	33,33%	0,00%	0,00%	100%	A/M/I	0,33	-0,33
HR management/recruiting (s20):	8,33%	8,33%	25,00%	58,33%	0,00%	0,00%	100%	I	0,17	-0,33
Public relations/referral (s21):	25,00%	8,33%	16,67%	50,00%	0,00%	0,00%	100%	I	0,33	-0,25
Management assistance (s22):	33,33%	8,33%	8,33%	50,00%	0,00%	0,00%	100%	I	0,42	-0,17
Information technology (IT) (s23):	41,67%	8,33%	8,33%	41,67%	0,00%	0,00%	100%	A/I	0,50	-0,17
Workshops, training and education (s24):	50,00%	25,00%	0,00%	25,00%	0,00%	0,00%	100%	A	0,75	-0,25
Coaching/mentoring (s25):	33,33%	25,00%	16,67%	25,00%	0,00%	0,00%	100%	A	0,58	-0,42
Pooled buying programs (s26):	16,67%	0,00%	0,00%	83,33%	0,00%	0,00%	100%	I	0,17	0,00
Help with relocation (s27):	41,67%	0,00%	8,33%	50,00%	0,00%	0,00%	100%	I	0,42	-0,08
3. NETWORKING										
Outside business connections (s28):	25,00%	41,67%	8,33%	25,00%	0,00%	0,00%	100%	O	0,67	-0,50
Business connections between tenants (s29):	16,67%	16,67%	41,67%	25,00%	0,00%	0,00%	100%	M	0,33	-0,58
Outside strategic partners (s30):	41,67%	25,00%	16,67%	16,67%	0,00%	0,00%	100%	A	0,67	-0,42
Access to outside business support service providers (s31):	8,33%	41,67%	0,00%	50,00%	0,00%	0,00%	100%	I	0,50	-0,42
Mediation/links with institutions such as Universities (s32):	33,33%	16,67%	8,33%	41,67%	0,00%	0,00%	100%	I	0,50	-0,25
Information and technology transfer (s33):	8,33%	8,33%	0,00%	83,33%	0,00%	0,00%	100%	I	0,17	-0,08
Access to skilled workforce (s34):	66,67%	0,00%	0,00%	33,33%	0,00%	0,00%	100%	A	0,67	0,00
5. FINANCING										
Equity financing (s35):	16,67%	0,00%	16,67%	66,67%	0,00%	0,00%	100%	I	0,17	-0,17
Debt financing (s36):	8,33%	0,00%	16,67%	75,00%	0,00%	0,00%	100%	I	0,08	-0,17
Assistance with government grants and loans (s37):	33,33%	8,33%	33,33%	25,00%	0,00%	0,00%	100%	A/M	0,42	-0,42
Subsidies related to cost reduction (s38):	50,00%	16,67%	16,67%	16,67%	0,00%	0,00%	100%	A	0,67	-0,33
6. RESULTS OF THE QUALITATIVE INTERVIEWS										
Creation of an (intrapreneurial) eco-system (s39):	33,33%	0,00%	16,67%	50,00%	0,00%	0,00%	100%	I	0,33	-0,17
Idea generation (s40):	33,33%	8,33%	25,00%	33,33%	0,00%	0,00%	100%	A/I	0,42	-0,33
Provision of a launching customer/distribution (s41):	33,33%	8,33%	8,33%	50,00%	0,00%	0,00%	100%	I	0,42	-0,17
Bread fund (s42):	33,33%	0,00%	0,00%	66,67%	0,00%	0,00%	100%	I	0,33	0,00

Appendix 13. Attribute categories and CS coefficients of services across all incubators

BI service offerings:	De Gasfabriek (12)			ACE/Startup Village (12)			Overall (24)		
	Attribute:	Satisfaction:	Dissatisfaction:	Attribute:	Satisfaction:	Dissatisfaction:	Attribute:	Satisfaction:	Dissatisfaction:
1. PHYSICAL INFRASTRUCTURE									
Affordable office space (s1):	M	0,25	*-0,75	A/M	0,58	-0,58	M	0,42	** -0,67
Office equipment/furniture (s2):	A	0,45	-0,15	I	0,50	-0,25	A/I	0,48	-0,20
Credibility/visibility enhancement (s3):	A	*0,75	-0,42	O	*0,75	*-0,67	A/O	**0,75	-0,54
Conference/meeting room (s4):	A	0,67	-0,33	A	*0,67	-0,33	A	0,67	-0,33
Cafeteria/lunch room (s5):	I	0,50	-0,17	A	*0,67	-0,08	A	0,58	-0,13
Library (s6):	I	0,17	0,00	I	0,25	0,00	I	0,21	0,00
Sports facilities (s7):	I	0,40	0,00	A	0,60	0,00	A/I	0,50	0,00
Technology specific infrastructure (s8):	I	0,50	-0,33	I	0,25	-0,17	I	0,38	-0,25
4. SHARED OFFICE SERVICES									
Security (s9):	O	0,50	-0,58	M	0,17	*-0,75	M	0,33	** -0,67
Custodial/maintenance (s10):	A	0,42	-0,25	I	0,50	-0,33	I	0,46	-0,29
Extra storage (s11):	I	0,25	-0,17	I	0,50	-0,08	I	0,38	-0,13
IT-related services/network support (s12):	M	0,42	-0,67	M	0,33	*-0,75	M	0,38	** -0,71
Common secretary/receptionist (s13):	A	0,58	-0,08	I	0,00	0,00	I	0,29	-0,04
Group insurances (s14):	A	*0,75	-0,08	I	0,25	-0,08	A	0,50	-0,08
2. BUSINESS SUPPORT SERVICES									
Help with business plan (s15):	M	0,42	-0,50	A	0,58	-0,50	A/M	0,50	-0,50
Marketing/sales (s16):	A	0,67	-0,33	A/O	*0,67	-0,50	A	0,67	-0,42
R&D (product/service development) (s17):	A/I	0,50	0,00	A	0,50	-0,25	A	0,50	-0,13
Accounting and financial management (s18):	A/I	0,50	-0,33	A	0,58	-0,25	A	0,54	-0,29
Legal advice (s19):	A	0,50	-0,25	A/M/I	0,33	-0,33	A	0,42	-0,29
HR management/recruiting (s20):	I	0,27	0,00	I	0,17	-0,33	I	0,22	-0,16
Public relations/referral (s21):	A	0,64	-0,23	I	0,33	-0,25	A	0,48	-0,24
Management assistance (s22):	A	0,55	0,00	I	0,42	-0,17	I	0,48	-0,08
Information technology (IT) (s23):	I	0,50	-0,08	A/I	0,50	-0,17	I	0,50	-0,13
Workshops, training and education (s24):	A	0,67	-0,33	A	*0,75	-0,25	A	**0,71	-0,29
Coaching/mentoring (s25):	M	0,17	*-0,75	A	0,58	-0,42	M	0,38	-0,58
Pooled buying programs (s26):	A	0,50	-0,08	I	0,17	0,00	I	0,33	-0,04
Help with relocation (s27):	A	0,56	0,00	I	0,42	-0,08	A/I	0,48	-0,04
3. NETWORKING									
Outside business connections (s28):	M	0,42	-0,67	O	*0,67	-0,50	O/M	0,54	-0,58
Business connections between tenants (s29):	M	0,25	-0,50	M	0,33	-0,58	M	0,29	-0,54
Outside strategic partners (s30):	I	0,42	-0,42	A	*0,67	-0,42	A	0,54	-0,42
Access to outside business support service providers (s31):	I	0,36	-0,23	I	0,50	-0,42	I	0,43	-0,32
Mediation/links with institutions such as Universities (s32):	I	0,42	-0,17	I	0,50	-0,25	I	0,46	-0,21
Information and technology transfer (s33):	I	0,50	-0,08	I	0,17	-0,08	I	0,33	-0,08
Access to skilled workforce (s34):	A	*0,82	0,00	A	*0,67	0,00	A	**0,74	0,00
5. FINANCING									
Equity financing (s35):	I	0,58	-0,25	I	0,17	-0,17	I	0,38	-0,21
Debt financing (s36):	A	0,60	-0,07	I	0,08	-0,17	I	0,32	-0,11
Assistance with government grants and loans (s37):	A/I	0,58	-0,17	A/M	0,42	-0,42	A	0,50	-0,29
Subsidies related to cost reduction (s38):	A	0,67	-0,25	A	*0,67	-0,33	A	0,67	-0,29
6. RESULTS OF THE QUALITATIVE INTERVIEWS									
Creation of an (intrapreneurial) eco-system (s39):	M	0,33	*-0,83	I	0,33	-0,17	M	0,33	-0,50
Idea generation (s40):	A	0,67	-0,42	A/I	0,42	-0,33	A	0,54	-0,38
Provision of a launching customer/distribution (s41):	A	*0,75	-0,42	I	0,42	-0,17	A	0,58	-0,29
Bread fund (s42):	A	0,67	-0,17	I	0,33	0,00	A	0,50	-0,08

* = Highest three CS coefficients per incubator
 ** = Highest three CS coefficients overall

A = Attractive
 I = Indifferent

M = Must be
 R = Reverse

O = One-dimensional
 Q = Questionable

Appendix 14. Attribute categories and CS coefficients for the segmentation ‘Entrepreneurial experience’.

BI service offerings:	GROUP 1			GROUP 2			OVERALL		
	ENTREPRENEURIAL EXPERIENCE = 2 YEARS OR < LESS (12 responses)			ENTREPRENEURIAL EXPERIENCE > MORE THAN 2 YEARS (12 responses)			(24 responses)		
	Attribute:	Satisfaction:	Dissatisfaction:	Attribute:	Satisfaction:	Dissatisfaction:	Attribute:	Satisfaction:	Dissatisfaction:
1. PHYSICAL INFRASTRUCTURE									
Affordable office space (s1):	M	0,33	*-0,58	M	0,50	-0,75	M	0,42	** -0,67
Office equipment/furniture (s2):	I	0,36	-0,15	A	0,58	-0,25	A/I	0,48	-0,20
Credibility/visibility enhancement (s3):	O	0,67	*-0,58	A	*0,83	-0,50	A/O	**0,75	-0,54
Conference/meeting room (s4):	A	0,67	-0,42	A	*0,67	-0,25	A	0,67	-0,33
Cafeteria/lunch room (s5):	I	0,42	-0,08	A	*0,75	-0,17	A	0,58	-0,13
Library (s6):	I	0,25	0,00	I	0,17	0,00	I	0,21	0,00
Sports facilities (s7):	A	0,60	0,00	I	0,40	0,00	A/I	0,50	0,00
Technology specific infrastructure (s8):	I	0,42	-0,25	I	0,33	-0,25	I	0,38	-0,25
4. SHARED OFFICE SERVICES									
Security (s9):	M	0,42	*-0,58	M	0,25	-0,75	M	0,33	** -0,67
Custodial/maintenance (s10):	A	0,67	-0,17	I	0,25	-0,42	I	0,46	-0,29
Extra storage (s11):	A	0,50	-0,08	I	0,25	-0,17	I	0,38	-0,13
IT-related services/network support (s12):	M	0,42	*-0,75	M	0,33	-0,67	M	0,38	** -0,71
Common secretary/receptionist (s13):	I	0,25	-0,08	I	0,33	0,00	I	0,29	-0,04
Group insurances (s14):	A	0,50	-0,17	A/I	0,50	0,00	A	0,50	-0,08
2. BUSINESS SUPPORT SERVICES									
Help with business plan (s15):	I	0,42	-0,42	A/M	0,58	-0,58	A/M	0,50	-0,50
Marketing/sales (s16):	A/O	0,67	-0,50	A	*0,67	-0,33	A	0,67	-0,42
R&D (product/service development) (s17):	A/I	0,50	-0,17	A	0,50	-0,08	A	0,50	-0,13
Accounting and financial management (s18):	A	0,50	-0,42	A	0,58	-0,17	A	0,54	-0,29
Legal advice (s19):	A/M/I	0,33	-0,33	A	0,50	-0,25	A	0,42	-0,29
HR management/recruiting (s20):	I	0,25	-0,25	I	0,18	-0,08	I	0,22	-0,16
Public relations/referral (s21):	A	0,42	-0,33	A	0,55	-0,15	A	0,48	-0,24
Management assistance (s22):	A	0,58	-0,17	I	0,36	0,00	I	0,48	-0,08
Information technology (IT) (s23):	I	0,50	-0,25	A	0,50	0,00	I	0,50	-0,13
Workshops, training and education (s24):	A	*0,83	-0,42	A	0,58	-0,17	A	**0,71	-0,29
Coaching/mentoring (s25):	M	0,42	*-0,58	M	0,33	-0,58	M	0,38	-0,58
Pooled buying programs (s26):	I	0,33	-0,08	I	0,33	0,00	I	0,33	-0,04
Help with relocation (s27):	A/I	0,45	-0,08	A/I	0,50	0,00	A/I	0,48	-0,04
3. NETWORKING									
Outside business connections (s28):	A/M	0,50	-0,50	O	0,58	-0,67	O/M	0,54	-0,58
Business connections between tenants (s29):	M	0,33	*-0,67	M	0,25	-0,42	M	0,29	-0,54
Outside strategic partners (s30):	A	0,67	-0,50	I	0,42	-0,33	A	0,54	-0,42
Access to outside business support service providers (s31):	I	0,42	-0,25	I	0,45	-0,38	I	0,43	-0,32
Mediation/links with institutions such as Universities (s32):	I	0,42	-0,33	A	0,50	-0,08	I	0,46	-0,21
Information and technology transfer (s33):	I	0,42	-0,17	I	0,25	0,00	I	0,33	-0,08
Access to skilled workforce (s34):	A	*0,92	0,00	A	0,55	0,00	A	**0,74	0,00
5. FINANCING									
Equity financing (s35):	I	0,33	-0,17	I	0,42	-0,25	I	0,38	-0,21
Debt financing (s36):	I	0,27	-0,08	I	0,36	-0,15	I	0,32	-0,11
Assistance with government grants and loans (s37):	A	0,67	-0,33	I	0,33	-0,25	A	0,50	-0,29
Subsidies related to cost reduction (s38):	A	*0,75	-0,25	A/I	0,58	-0,33	A	0,67	-0,29
6. RESULTS OF THE QUALITATIVE INTERVIEWS									
Creation of an (intrapreneurial) eco-system (s39):	MI	0,33	-0,42	M	0,33	-0,58	M	0,33	-0,50
Idea generation (s40):	A	0,50	-0,42	A	0,58	-0,33	A	0,54	-0,38
Provision of a launching customer/distribution (s41):	A	0,50	-0,33	A	*0,67	-0,25	A	0,58	-0,29
Bread fund (s42):	A	0,58	-0,08	I	0,42	-0,08	A	0,50	-0,08

* = Highest three CS coefficients per group
 ** = Highest three CS coefficients overall

A = Attractive
 I = Indifferent

M = Must be
 R = Reverse

O = One-dimensional
 Q = Questionable

Appendix 15. Differences in CS coefficients of services across both Group 1 and Group 2 for the segmentation 'Entrepreneurial experience'.

BI service offerings:	GROUP 1		GROUP 2		Absolute Difference[]	
	ENTREPRENEURIAL EXPERIENCE = 2 YEARS OR < LESS (12 responses)		ENTREPRENEURIAL EXPERIENCE > MORE THAN 2 YEARS (12 responses)		Satisfaction:	Dissatisfaction:
	Δ Satisfaction:	Δ Dissatisfaction:	Δ Satisfaction:	Δ Dissatisfaction:		
1. PHYSICAL INFRASTRUCTURE						
Affordable office space (s1):	-0,17	0,17	0,17	-0,17	0,17	-0,17
Office equipment/furniture (s2):	-0,22	0,10	0,22	-0,10	0,22	-0,10
Credibility/visibility enhancement (s3):	-0,16	-0,08	0,16	0,08	0,16	-0,08
Conference/meeting room (s4):	0,00	-0,17	0,00	0,17	0,00	-0,17
Cafeteria/lunch room (s5):	-0,33	0,09	*0,33	-0,09	**0,33	-0,09
Library (s6):	0,08	0,00	-0,08	0,00	0,00	0,00
Sports facilities (s7):	0,20	0,00	-0,20	0,00	0,00	0,00
Technology specific infrastructure (s8):	0,08	0,00	-0,08	0,00	0,00	0,00
4. SHARED OFFICE SERVICES						
Security (s9):	0,17	0,17	-0,17	-0,17	0,17	-0,17
Custodial/maintenance (s10):	*0,42	0,25	-0,42	*-0,25	**0,42	**0,25
Extra storage (s11):	0,25	0,09	-0,25	-0,09	0,25	-0,09
IT-related services/network support (s12):	0,08	-0,08	-0,08	0,08	0,08	-0,08
Common secretary/receptionist (s13):	-0,08	-0,08	0,08	0,08	0,08	-0,08
Group insurances (s14):	0,00	-0,17	0,00	0,17	0,00	-0,17
2. BUSINESS SUPPORT SERVICES						
Help with business plan (s15):	-0,17	0,16	0,17	-0,16	0,17	-0,16
Marketing/sales (s16):	0,00	-0,17	0,00	0,17	0,00	-0,17
R&D (product/service development) (s17):	0,00	-0,09	0,00	0,09	0,00	-0,09
Accounting and financial management (s18):	-0,08	*-0,25	0,08	0,25	0,08	**0,25
Legal advice (s19):	-0,17	-0,08	0,17	0,08	0,17	-0,08
HR management/recruiting (s20):	0,07	-0,17	-0,07	0,17	0,07	-0,17
Public relations/referral (s21):	-0,13	-0,18	0,13	0,18	0,13	-0,18
Management assistance (s22):	0,22	-0,17	-0,22	0,17	0,22	-0,17
Information technology (IT) (s23):	0,00	*-0,25	0,00	0,25	0,00	**0,25
Workshops, training and education (s24):	0,25	*-0,25	-0,25	0,25	0,25	**0,25
Coaching/mentoring (s25):	0,08	0,00	-0,08	0,00	0,08	0,00
Pooled buying programs (s26):	0,00	-0,08	0,00	0,08	0,00	-0,08
Help with relocation (s27):	-0,05	-0,08	0,05	0,08	0,05	-0,08
3. NETWORKING						
Outside business connections (s28):	-0,08	0,16	0,08	-0,16	0,08	-0,16
Business connections between tenants (s29):	0,08	*-0,25	-0,08	0,25	0,08	**0,25
Outside strategic partners (s30):	0,25	-0,17	-0,25	0,17	0,25	-0,17
Access to outside business support service providers (s31):	-0,04	0,13	0,04	-0,13	0,04	-0,13
Mediation/links with institutions such as Universities (s32):	-0,08	*-0,25	0,08	0,25	0,08	**0,25
Information and technology transfer (s33):	0,17	-0,17	-0,17	0,17	0,17	-0,17
Access to skilled workforce (s34):	*0,37	0,00	-0,37	0,00	**0,37	0,00
5. FINANCING						
Equity financing (s35):	-0,08	0,08	0,08	-0,08	0,08	-0,08
Debt financing (s36):	-0,09	0,07	0,09	-0,07	0,09	-0,07
Assistance with government grants and loans (s37):	*0,33	-0,08	-0,33	0,08	**0,33	-0,08
Subsidies related to cost reduction (s38):	0,17	0,08	-0,17	-0,08	0,17	-0,08
6. RESULTS OF THE QUALITATIVE INTERVIEWS						
Creation of an (intrapreneurial) eco-system (s39):	0,00	0,16	0,00	-0,16	0,00	-0,16
Idea generation (s40):	-0,08	-0,09	0,08	0,09	0,08	-0,09
Provision of a launching customer/distribution (s41):	-0,17	-0,08	0,17	0,08	0,17	-0,08
Bread fund (s42):	0,17	0,00	-0,17	0,00	0,17	0,00

* = Highest three differences in CS

** = Highest three absolute CS coefficient differences