SmartXchange

Overview

SmartXchange is a technology incubator specializing in support of the national Information and Communications Technology (ICT) build out effort. The facilities are located in Durban, South Africa.

SmartXchange is a not-for-profit organization, as created under South African law, and presently provides services to 47 companies, of which 19 are resident and 28 are virtual tenants. All of the companies are, in one way or another, offering services and products to the ICT sector. While most companies offer their product and services within the country, they also are attempting to expand their markets in the region and globally if possible.

Strategic Environment Summary

South Africa is a middle-income, emerging market of approximately 48 million people, with an abundant supply of natural resources; well-developed financial, legal, communications, energy, and transport sectors; a stock exchange that is 17th largest in the world; and a modern infrastructure supporting an efficient distribution of goods to major urban centers throughout the region. While economic growth has been good, there are daunting economic problems that remain from the apartheid era, with particular regard to poverty and a lack of economic empowerment among the disadvantaged groups. South African economic policy is fiscally conservative but pragmatic, focusing on controlling inflation, maintaining a budget surplus, and using state-owned enterprises to deliver basic services to low-income areas as a means to increase job growth and household income.[33]

South Africa has a well-earned reputation for being a good place to do business on the African Continent. It is rated number two in the Sub-Saharan region, and 32 when compared to all nations falling just below France. Only Mauritius, on the African continent, has a higher rating in the World Bank's Doing Business Survey.[34]

The government of South Africa has a policy to grow jobs and create opportunity for its formerly disadvantaged citizens. The policy is called the Broad Based Black Employment Equity (BBBEE) Act,[35] and companies interested in doing business with the national and local government must comply and meet specific targets represented as a "score card". In Durban, 67% of the spending for ICT is purchased through the local government, and companies see compliance with the act as a necessary requirement for obtaining contracts. The regulation has stimulated the opportunity for incubator tenants to offer services to larger companies seeking business in the region.

Durban (Zulu Name: eThekwini) is the third most populous city in South Africa, forming part of the eThekwini metropolitan municipality. It is the largest city in the KwaZulu-Natal (KZN) province and is famous for having the busiest port in Africa. It is also a major center of tourism due to the city's warm subtropical climate and beaches.

---

[33] https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html
[34] http://www.southafrica.info/business/trends/empowerment/bee.htm
[35] https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html

According to the 2007 Community Survey, the city has a population of almost 3.5 million. Durban's land area of 2,292 square kilometers (884.9 sq mi) is comparatively larger than other South African cities, resulting in a somewhat lower population density of 1,513 inhabitants per square kilometer (3,918.7/sq mi).[36]

Durban's City Administration has, since 2004, been focused on building infrastructure with the objective of attracting business to the city. They have conceptualized the plan as a "Smart City" where access to inexpensive ICT services will be the magnet to attract the business community within the country, and from the southern region of Africa.

The published unemployment rate is over 23% in the country, but the true figure is likely to be a good deal higher. Jobs are harder to find the further down the skill ladder one goes. The ICT sector is seen by government, and by the people interviewed, to have job growth opportunity. For some jobs the skill level needed is not very great (e.g., pulling CAT5 cable to set-up local networks in office space). For other jobs the skill level demanded is quite high, such as software programming, convergence technologies and advanced network administration.

The national telecommunications system is the best developed and most modern in Africa, having a combined fixed-line and mobile/cellular teledensity of nearly 110 telephones per 100 persons. This consists of carrier-equipped open-wire lines, coaxial cables, microwave radio relay links, fiber-optic cable, radiotelephone communication stations and wireless local loops. Key telecommunication centers include: Bloemfontein, Cape Town, Durban, Johannesburg, Port Elizabeth and Pretoria.[37]

The mobile phone sector is highly competitive, but the land-line business is highly regulated and shows little in the way of a competitive presence. Mobile providers in South Africa by rank in terms of Q1, 2007 numbers of subscribers are: Vodacom (23M), MTN (13M), Cell-C (3.35M), and Virgin (.1M).[38] South Africa is considered a relatively mature mobile market. There is a plan to greatly increase bandwidth in the next two years, but to date access and bandwidth is limited and costly.

Almost every major international company is represented in South Africa, and many are suppliers or service providers for the ICT sector. Consequently, these companies see the national program for the ICT build out as a growth opportunity, but to do business in the country they must comply with the BBBEE policy. Therefore, foreign companies are a ready customer for the incubator tenants and are generally supportive of the incubator's work. In some cases, companies have contributed resources in support of SmartXchange.

Conducting business in South Africa is relatively easy for international firms and the legal system is well developed, being based on the British Law. Contract Law is seemingly well understood and the courts appear to be impartial arbitrators in such legal maters. For the most part the business practices are similar to Western Countries.

Project

SmartXchange is a not-for-profit incubator supported by Durban's City Government. It provides services for 47 companies that employ over 241 people. The incubator offers services in the form of training and counseling for business planning, building basic business skills and a verity of specialized

---

[36] https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html
[37] https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html
[38] African Mobile Factbook, 2008, Blycroft Publishing, www.africantelecomsnews.com

tenant needs. The incubator is located in the business district of Durban, and is within reach of public transportation.

Incubator Physical Properties

The physical facilities include two office buildings with a connecting atrium providing a total of more than 13,000M², of which about 11,500M² is devoted to space for commercial tenants and offsets the operating cost of the incubator. The remaining space of about 1800M² is for the incubator tenants. In this space SmartXchange provides: office space, lab space, conference facilities, meeting rooms and break-rooms. General office services are provided and include: telephone, receptionist, copy services and internet access. Parking is under the building and tenant companies are given space for one car. Public parking is available a few hundred feet form the building.

Companies intending to enter the incubator must meet admission requirements, and includes that they have complied with the following:

- Have formed a legal entity
- Are owned by previously disadvantaged people
- Demonstrated the needed technical skills to carry out the business function
- Begun to sell their product or service
- Obtained a Tax Clearance Certificate
- Developed a Business Plan

The final decision to accept or reject a company rests with the management of the incubator.

The incubator is marketed through brochures, media exposure, fund raising activities and informal means of communication. Also, marketing is achieved through strong visibility with the general business community by virtue of its location. Tenants have reported having found the incubator by reading about it, and friends telling them about it. In one case, it was from living near one of the incubator managers and having a conversation about starting a business.

Transportation

The location is well served by public transportation for city travel, and two airports for travel to more distant places. Durban is a very active seaport offering the ability to ship goods overseas as well.

Incubation Program

The SmartXchange has a three tier support policy and the tiers correspond roughly to a three year period of support. Graduation is expected at the end of the third year. The following Table describes the Three Tier Support Policy.[39]

Tier 1	Tier 2	Tier 3
This stage is characterized by developing the initial concept for the business and taking it to the reality of trading. Businesses at this stage of development have few formal structures, are owner managed with most decision based on 'gut feel'. A key emphasis rests on building the client base and cash income.	At this stage the need for a business to be trading and expanding revenue is of key concern. There is far more awareness of cost and the need for quality products/services. Simple management structures exist and communication is informal due to the size of the team. Capital expenditure can be problematic, and there is a greater emphasis on sales versus profit.	Emphasis on coordinating the resources and maximizing the use of assets. The conflict of informal versus formal management style creeps in. Methodologies that worked previously now need to be replaced with formal structures, policies and procedures. This stage of growth is characterized by needing to spend time consolidating the business in terms of sales and customer satisfaction. Also, there is a need to spend time developing systems and procedures to ensure that a quality product/service is offered, costs are contained and resources utilized effectively.

The incubator reports that it has no special relationship with local schools or universities. However, they do have personal contacts at the university level and make these available to the tenants as needed.

Tenants

The incubator companies consist of two groups, those in physical residence in the incubator (19 companies), and those that are 'Virtual' incubator clients (28 companies) and reside off-premises. Almost all of the companies are in the professional service businesses and are connected to the ICT infrastructure.

Tenant companies are a mix of contract development firms, and those having developed proprietary solutions and are marketing them to a wide range of domestic and international clients. Few of these companies appear to have proprietary solutions that have led, or will lead, to patent or other forms of Intellectual Property protection. Few of the companies would meet the expectations of being high growth potential companies as we might expect to see in other incubators. However, these companies all seem quite viable in the context of the country's

---

[39] Excel Spreadsheet showing the Tier System for SmartXchange, created by SmartXchange management.

economic system, and all appear to have a moderate to good opportunity for continued business within the country and region.

A sample of six tenant companies was interviewed for this report. Each company related their reasons for joining the incubator and these varied. Notably, one company was only seeking good affordable office space, and the others seeking credibility conferred by being at the incubator, and using incubator linkages to the business community. The clear expectation for these companies was to expand their client base through SmartXchange contacts, which seemed to be successful for at lest two of the six companies.

Expectations that the companies had for membership in the incubator were largely met and include access to: offices, conference facilities, meeting rooms, a location in the business district and incubator contacts with the local government and their connected business entities.

A review of ratings assigned to the amenities and services available at the incubator show that most companies made use of the physical facilities, and these were for the most part deemed to exceed expectations (a rating of 5 out of 5 points in a tenant survey). This is consistent with the interviews where satisfaction seemed to be highest with the location, address and physical plant offered by the incubator.

Uniformly, the companies thought that the incubator management was exceptional and provided sound and significant support. The only area where expectations were not fully met was regarding opportunity to meet and develop business relationships with customers coming as referrals through the incubator. Though, even here, the expression of the need was not associated with criticism of the incubator or it's highly regarded management.

Organizational Structure

As noted, the incubator is a not-for-profit organization under South African Law.

Management
The incubator has a small but effective management team. The team is led by a CEO who was an entrepreneur who sold her business to a larger firm. The leadership team is organized by function, and includes five positions of which four are currently filled. They are:

1. CEO, Robynne Erwin
2. Manager, Rajesh Neerachand
3. Financial Person, Samke Zondi
4. Support Person, Zola Nebwehu

The team reports directly to the CEO who in turn reports to a Board consisting of six Board Members plus a Board Secretary.

Board Members
The following chart shows the present board members and their role and expected value to the incubator.

Board Member	Position	Strategic Value Add
Jonathan Naidoo	Chief Operating Officer of Trade & Investment KZN (TIKZN)	TIKZN is responsible for bringing a number of international investors to KZN and these delegations visit SmartXchange creating business opportunities for SMMEs.
Dan Ncwane	CEO of the State Information Technology Association (SITA)	SITA is responsible for outsourcing Government ICT tenders and thus having representation on board allows SX to lobby for the inclusion of SMMEs in the tender writing process.
Themba Ngcobo	Business Owner and Board Member of Ushaka & ICC, previously Chair of Chamber of Business	Prominent local business man. He is a potential champion of SmartXchange in the business community.
Reggie Govender	CEO of University of KwaZulu-Natal (UKZN) Innovation Company (commercialization of research)	UKZN is a strategic partner for addressing the skills shortage. Plus the Innovation Company commercializes research so that it is also a strategic partner for innovative SMMEs.
Mary Nontuthuko Magoso	HR Lawyer - runs her own practice	Access to legal advice in the field of HR.
Clive Manci	CEO of Evaluations - deemed to be the next president of the Chamber of Business	Prominent local business person and a potential champion of SmartXchange in the business community.
Martin Cele	Business Owner and previous CEO of SmartXchange	Previous CEO of SmartXchange and a champion of the program.
Mac Mia	Vice Chair of UKZN Council, Chairman of UKZN Finance Committee, previous president of SA Chamber of Businesses	Strategic relationship with UKZN at board level.
Fikiswa Pupuma	General Manager, Provincial Dept of Economic Development	Assists in building relationship with the Provincial Government. SMME development falls under economic development.
Atish Sanjowan		Company Secretary (Gobodo)

Stakeholders in SmartXchange

The Stakeholder analysis shows that there are at least seven groups that might be categorized as stakeholders in the SmartXchange Incubator. Of these, the most critical is the Smart City Program launched by the City as an initiative to dramatically increase the access to Broad band communications with the expectation that that will drive industry and commerce in coming years. The policies put in place by this project are one of the driving forces in helping to establish the incubator.

The City Government through its Telecom policy and regulatory policy is also a significant stakeholder in the Incubator. Much of the current power to affect the SmartXchange is based on the current law governing Black empowerment and the requirements that city is under for vetting contract firms and suppliers who can meet these requirements. This National Law is implemented at the local level through a "Scorecard" that is kept on each potential supplier of services and equipment to the City. Thus, to secure contracts with the city, the company must meet minimal requirements and the SmartXchange program is providing a cadre of Black Entrepreneurs who meet these requirements.

The Telecom Service providers and the Telecom Equipment and Software System Providers have recognized the large stake they have in seeing that the Incubator tenants are successful and therefore have a very large impact on the SmartXchange Incubator through funding, direst support and supplies of equipment technology and know how. These companies are operating under the local regulatory structure and therefore are required to employ disadvantaged individuals and groups to meet these regulatory requirements. As such they have a strong incentive to support the programs at SmartXchange and provide contracts for funding development work though these entrepreneurial businesses. In the case of some of the Equipment and Software Systems Providers, some of these stakeholders have taken the further step of taking office space at the incubator, offering direct training for the incubator tenants and providing equipment and software at substantial discounts to these tenants who then can profitably resell it to local companies and organizations. They have become partners of the Incubator in recognition of their stakeholder status.

Local Business Community is a diverse one ranging from Tourism to International Shipping. Their stakeholder role is as beneficiaries of the rapid growth of ICT services and competent communities of ICT technical support personnel, who can install, maintain and repair the ICT infrastructure. The principle sectors currently receiving this benefit are Shipping, Banking, Construction, and Manufacturing and Assembly firms currently operating in the region and planning to enter the region. For these firms, a stable and well ordered inexpensive Telecom and Internet infrastructure are essential components of their respective businesses.
Universities and Collages within the local Province and within the City have established ICT programs at several levels from single course offerings to graduate programs in ICT related areas. These academic institutions are stakeholders in that their students find positions within the tenant firms at the Incubator.

Budget and Funding

As a not-for-profit corporation, all revenue is devoted to services and overhead expenses of the program. The annual budget for SmartXchange is approximately 7 Million Rand, of which the city provides approximately 4 Million Rand. The remainder of the operating expense is provided by the rental of space in the building to commercial tenants, active fund raising carried out by the management with sponsor companies, and grants from the government, and others, as the opportunities are available. Sponsor money often comes with restrictions concerning how the money is to be spent, and that usually involves training, SMME awards and conferences. Another form of support from sponsors and partners is in the form of outsourced contract work for the tenant companies. In 2008, contract work amounted to more than 10 Million Rand. Local tax rules require managing the not-for-profit organization at a zero balance each year, forcing the incubator to either spend the excess, or roll the excess into contracts to be carried out in the following year. The subleasing of office space in the facility brings together commercial companies that can have a relationship with the tenant companies, are service providers to them, or have potential to become customers. The rents from commercial tenants provide a substantial offset to the operational costs of the incubator, and help make the operation financially sustainable.[40]

Graduation Policy

The graduation policy is set at three years, and is summarized above under the Three Tier Policy.

Conclusion

Information Not Mentioned Above

The tenure of the present CEO will end in 2009. She is tasked with training her replacement who is, as of yet, unnamed.

Implications for the ICT Africa Sustainable, Replicable, Business Incubation Model

1. **Shared Commercial Tenant Space:** There is a benefit to having a sector incubator in which almost all tenants are focused on the ICT industry. This facilitates networking for the tenant companies and generates a substantial cash flow for the incubator. It would appear that in almost all cases, real estate will be a cost driver for the incubator.

---

[40] SmartXchange Board Meeting documentation, 19 September, 2008

2. **The Incubator as a Brand:** The brand Identity of this incubator is another idea worthy of comment. By being tenants of SmartXchange, the small companies have an identity that transcends their own capabilities and is known to the local business community under the SmartXchange brand. This branding includes an attractive location in the business district, the use of the facilities for customer meetings and the overall imprimatur of brand strength as it is perceived in the business community. The notion of branding carries with it some additional attributes. Since all companies are associated with the SmartXchange brand, there seems to be a high degree of mutual support among the incubated companies. This carries even to the point of providing services to each other, and supplying resources and people to help fellow SmartXchange companies meet changing business conditions. They will in fact, cross sell their services and take a commission for such sales. One result of this style of branding is the collaborative and cooperative nature of the resident companies. It is as if they are all sharing in the success of the venture called SmartXchange. It would appear that this type of branding was instigated by the present CEO, and ties back to the way in which the administrative structure is organized. The term Cooperative Venture seems to describe this incubator. Further, it is an adaptive organizational form for companies in this environment and may well have implications for other incubators.

3. **Expanded Business Services for Incubator Tenants:** The absence of legal, accounting, business development and human resource support seems to be acutely felt by tenants in the incubator and is perhaps based on an expectation engendered by having a strong brand identity with the incubator. From a business point of view, this expectation makes sense since most of the companies we interviewed could not afford such services on their own. While in South Africa, there were reports in the local press that there is a need to have more trained accountants. Seemingly, these skills are in short supply and therefore sharing the cost of acquiring such skills would no doubt make good business sense.

4. **Critical Location and Access to the Business Community:** Location is clearly a critical factor in the success of this incubator. It has excellent public transportation available at the front door, it is in the heart of the business district and one can walk to most customers. And, with the location comes a recognized address that has status associated with it; recognized throughout South Africa. This incubator can be seen, and is prominent at street level. This is in sharp contrast to a visit to another incubator in a suburban area that was not near any public transportation. It was for all intent, in a great location if one wants privacy and seclusion. It had few tenants and seemed to have difficulty recruiting new ones.

5. **Corporate Sponsors and Partners**: These companies play a very significant role in this incubator. Since sponsors are among the major beneficiaries of the talent pool represented in the incubator it is reasonable for them to provide support for these early stage companies in the form of training, channel distribution agreements, equipment and customer introductions. The build out of ICT takes substantial resources and it needs to come from local people due to the issues of language, customs and local regulation.

6. Thus, having a facility that can develop small companies to provide skilled and well trained infrastructure development staff in the local environment makes good business sense. In some ways, these incubator sponsor companies are providing the resources that one might expect from members of the investment community, but are not forthcoming because the risk reward is not sufficient to justify a high rate of investment. Whereas, for international players like Microsoft, IBM, and Cisco to name just three, the reward is in enhancing their local distribution channel at a relatively modest cost and at very low risk.

Acknowledgement

The writers extend their sincere thanks to the management and staff of each of the five incubators that were visited in the development of this report. Their willingness to devote time to our research, answer our questions, set appointments and host the team members was most appreciated, as is their contribution to the community of Business Incubator developers.