Chapter 5
Industry

The effect of Power Distance and IT-infrastructure on the information need

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Abstract

In order to understand how South African businesses deal with their information need, we studied if the Power Distance and the information infrastructure influence the information need. The method we used to acquire the information that we needed for our research is by interviewing one group of employees and we send a questionnaire to another group of employees.

We discovered that the influence of the Power Distance is very company related. In some type of companies the Power Distance is more present then in other types of companies and it can influence the information need.

Looking at the information infrastructure, large companies have enough resources to use the infrastructure, but smaller ones have more difficulties to access the infrastructures. Most of the information infrastructure is available in the large cities and almost none in the rural areas. According to this, doing business is possible in the larger cities, but it is nearly impossible to maintain business in the rural areas.

Next to this, we noticed the BEE (Black Economic Empowerment) and the 'brain-drain' are of big influence on businesses in South Africa.

Introduction

Within companies exists a need for information to fulfill their activities. This need for information has a significant role within the industry; it does not differ if it is either a large company or a small company. Within companies, there has to be a way to retrieve the information that employees need to fulfill their work. This can be done in several ways like direct vocal communication, e-mail, telecommunication or the Internet. With these and new techniques we can retrieve the information we need in a more efficient way. However, there are still some obstacles that can influence this need for information.

Our research goal is as follows:

We want to explore if the Power Distance and the information infrastructure in South-African businesses influence the information need.

In order to answer this question, we visited a couple of companies in South Africa such as IBM and Accenture. Besides that we send a questionnaire to other companies like Consequent and Bamboo Rock.

Supply of information

In South Africa exists a big difference in the way of acquiring information. This is mainly because there are still two separated areas and populations, where the differences between rich and poor, colored and white, are excessive.

In larger cities are enough possibilities to communicate via Internet, fax, email, telephone etc. However, these possibilities are hard to find in the rural areas.

Infrastructure

Looking at larger cities like Pretoria, several facilities are present such as the Internet. This is both for private and corporate use. However the use of Internet is available for home users as well, but this is not affordable for everyone. Besides that, there are some restrictions on these Internet connections, like a data limit and the slow up- and downstream of the connection. This is acceptable for normal use, such as browsing the Internet and checking emails. Nevertheless, nowadays there exists a bigger desire to download music, videos and to watch streaming video.

Knowing that this is problematic for regular customers, the problem of Internet "restrictions" will also affect businesses. For example, the University of Pretoria restricts their students to a certain data limit per year when using the Internet. The students have an option to buy extra Megabytes to extend their data limit. The University has to maintain this rule because the use of Internet is too expensive without this restriction.

In South Africa, Telkom has a monopoly position, which keeps competition to a minimum. The big disadvantage of this situation is that the prices are at a constant high level and these services are therefore less accessible for poorer people.

Telkom is a large company that provides services such as telephony and Internet connections. One could compare it with the Dutch KPN. This company also had a kind of monopoly position in the oncoming Broadband Internet in the late 90s.

The coverage of landlines, to provide telecommunication like Internet, is not the same as the coverage of mobile phones. In most of the rural areas exist a mobile phone connection, but no landline connection.

In South Africa it is not that difficult to establish landlines, but establishing mobile phone connections in rural areas is much easier.

As the picture below illustrates, a GSM/GPRS connection is available in most of the areas. But still, the problem could be that the required Internet connection is not available in rural areas, even though it could be established by using the already available mobile phone connection. For example in The Netherlands the 3G technique for mobile phones is already becoming a standard, while in South Africa the availability of 3G is only present within the larger cities. Even though South Africa is about twenty-nine times larger than The Netherlands, when we compare the numbers of The Netherlands (41.500 km²) with South Africa (1.228.376 km²) and put them in the right perspective, the coverage in The Netherlands is higher.
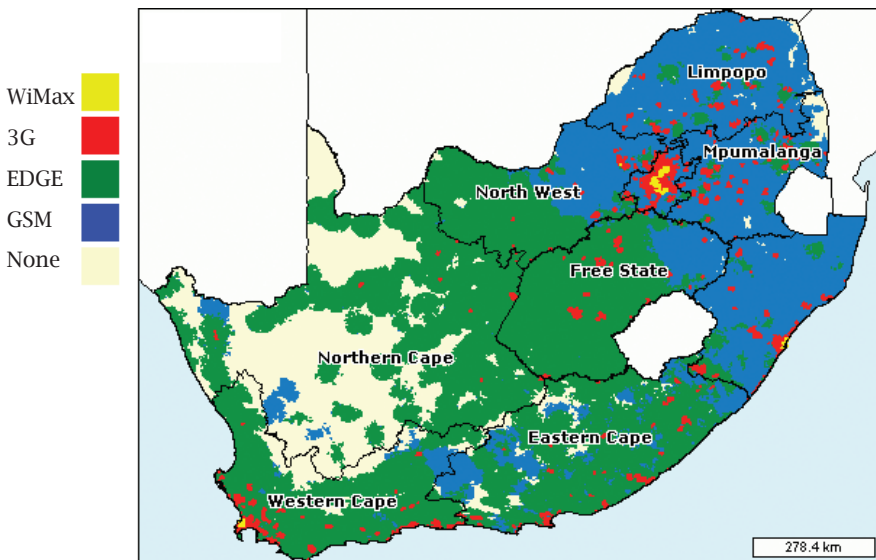

Fig. 1 – Coverage of Vodafone in South Africa. Source: http://www.vodamap.net/3g/

So if we look at these areas, there is a mobile phone connection in most of the areas of South Africa, therefore people have the opportunity to do business by mobile phone. But when people need advanced Internet possibilities, the coverage is not enough to provide that in the rural areas and areas where the landlines are not available.

On the other hand, if there is enough coverage of the advanced mobile connectivity's like HSPDA, 3G or WiMAX, the costs are too high to use them.

Doing and starting business in the rural areas is still difficult, because the needed facilities are not available or at a minimum.

This problem hardly has any impact on international companies. These companies have enough resources to pay high prices. They even invest in establishing and improving the infrastructure if it is in their own interest, for example to improve doing business with another company.

Some larger companies that we have visited in South Africa have a different way of retrieving the information that an employee needs to fulfill his job. For example, one company is using several information tools to receive all the information that an employee wishes to get. With those tools an employee can subscribe to the different topics from which he wants information. The tool's purpose is to get the desired information and make it accessible for the employee. The danger of using this kind of information tool is information overload. An employee can get too much information and will lose sight of actual important information for his job.

For smaller and starting companies this is a big problem, because they do not have the resources to implement such tools.

To expand the scope of telecommunication, in particular Internet, the use of a school hub is implemented. A school hub is an Internet divider that divides Internet over a specified area.

The image below is a graphical representation of a school hub. In this graphical representation the school has an Internet connection and acts like a hub. In this way other small companies, like Internet cafés, can use this Internet connection to offer people the chance to use Internet for personal use.
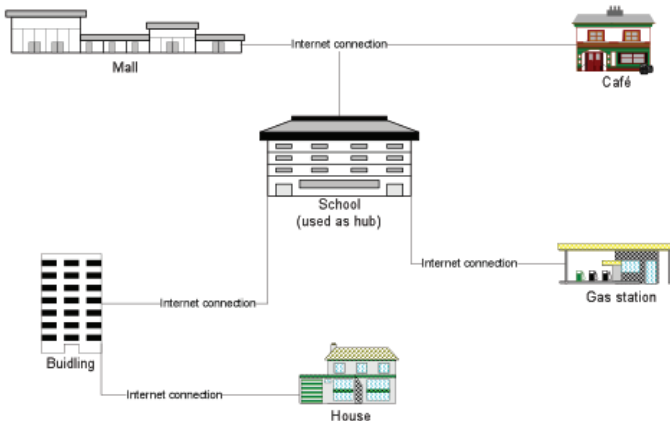

Fig.2 - Graphical representation of a school hub

In the center of the picture shown above, the school hub is visible. Different types of buildings, such as a mall, café, gas station etc. are connected with this school (which is used as an internet hub) so that these buildings have an Internet connection as well. In that same way, a house can be connected to the Internet through a building that is connected to the school hub.

Small and medium companies, starting business

To set up a company, many resources are needed. Besides the fact that setting up a company is expensive, it is also not possible within an area that is not located near a larger city. The reason for this is that the infrastructure is not available in every area in South Africa to maintain business. In many rural areas there is not even electricity. The word infrastructure used in this context, means establishing ways to establishing telecommunication possibilities. Areas located further away from the cities do not have any access to these facilities and infrastructures. So in these areas infrastructure, such as roads, electricity, landlines, drainage etc. has to be established before a company can even be built. When all the basic needs are established, there is no money left to build a company or invest in employees.

The government is only investing in larger cities, because these investments repay fast. In this way the rural areas are being withheld of economic growth.

Another obstacle for starting entrepreneurs is the fact that the most of their clients do not pay within the agreed terms of payment. For example: a starting entrepreneur makes a product. He has to invest al lot of money for the production of this product, but a client's payment is overdue, the entrepreneur cannot pay the salary of his employees, the rent, electricity etcetera and the company might go bankrupt.

In fact the government supporting these starting entrepreneurs seems to be the worst payer of all.

Organizational structures

BEE

The abbreviation BEE stands for Black Economic Empowerment. This system was set up shortly after the Apartheid ended and was originally introduced to promote the employment of colored South Africans. Nowadays, this system is sometimes used to accommodate colored foreigners with jobs in South African companies. It is a system where companies must obtain a certain amount of points in order to get governmental help, among other things. These points are obtained by providing employment for colored South Africans. Companies receive the most points by employing black women and the fewest points by employing white men. Something that can happen from time to time is that companies place a colored South African at a highly influential function within the company to obtain points. In truth, there is a white person that makes the decisions and does all the actual work for that job. Another situation which sometimes occurs is that during job applications, the resumes are sorted according to the number of points that can be collected with an applicant which results in a less fortunate position in job applications for white South Africans.

Besides governmental help, the BEE also makes it very difficult, if not impossible, for companies with fewer points to cooperate with companies that have sufficient points. The reason is that, when cooperating with such matter, the companies with sufficient points get fewer points because of this cooperation. Companies get a certain rating from the government; this rating has a scale from one to five, where one is the highest and five the lowest rating a company can achieve. When visiting IBM in Johannesburg, we found that IBM has rating of three. For them, it is very difficult to achieve a higher rating because of the requirements the government has set. For example, to achieve a rating of one or two, companies must have colored South Africans as stakeholders. For a global company like IBM, this is a requirement that is fairly impossible to take into account in their organizational structure. Nonetheless, a rating of three is enough to do business in South Africa.

Brain-drain

Something that has been happening in South Africa for quite a while now, is the departure of (mostly) white South Africans to foreign countries. It is called the 'brain-drain'. Most of them are highly educated and have the skills to fulfill a good job in South Africa. Due to various reasons, they are seeking jobs in other countries. Some reasons mentioned are the high crime rate, lack of job growth opportunities, salary and also the BEE. The biggest loss is not the intellect or the skills; there still are many skilled (black and white) people that are currently working and want to remain working in South Africa. However, when employees leave to go to another country, they also take a lot of experience and knowledge with them. The absence of this experience and knowledge is a huge loss for South African companies and this remains a large problem.

Power Distance

Power Distance is a variable used in a study of Geert Hofstede. The study was about the differences between national cultures in organizational cultures. The definition of Power Distance according to Hofstede [HOF94] is:

"Power distance is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders. Power and inequality, of course, are extremely fundamental facts of any society and anybody with some international experience will be aware that 'all societies are unequal, but some are more unequal than others.".
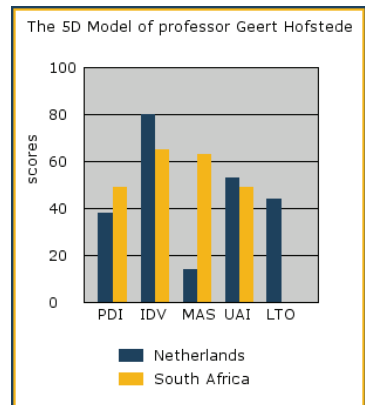

Fig 3. - Source: http://www.geert-hofstede.com/ hofstede_dimensions.php

The results of Hofstede's study between 1967 and 1973 were as follows :

On a scale from 1 to 100, where 1 is the least and 100 is the most, the PDI (Power Distance Index) of South Africa is 49. The PDI of The Netherlands is 38. For comparison, the world average PDI is 55.

Because the study of Hofstede took place before the Apartheid ended, we were curious to see whether, in our small study, we would notice a difference in Power Distance or not. Next to that, we used the variable Power Distance to examine whether the employees are able to get all the information they need to fulfill their jobs. As we have heard from our interviews, the Power Distance differs according to the company. Every company has its own rules and organizational structure, which can result in a totally different way of communicating with their colleagues. Where one company has a really strict and formal way of communicating with their superiors, another company has a much more informal way of communicating. In this way the superiors can be seen as colleagues, while the respect towards them remains.

Results

In order to give an answer to our research goal, we had two ways to gather information. The first way was to set up interviews with people in South Africa; the second way was to set up a questionnaire according to the information we received from these interviews.

From the obtained data, we can conclude that the information infrastructure in the larger cities is fairly minimal when compared with European standards. Larger companies do have the resources to use the available infrastructures; smaller ones have much more difficulties with accessing the infrastructures. Next to

Fig. 4 - Accenture Pretoria

that, in the rural areas there still is a lot of work to do to supply them with mobile phone coverage, let alone Internet access.

In this study, the results differ to that extent that we can barely draw any conclusions on the Power Distance. What we noticed is that the Power Distance is very dependent on the type of company. What we did not notice is whether the Power Distance depends in any way on the different South African cultures within a company.

Something that is of great importance within a company is the presence of the BEE. The really large companies employ such a large amount of personnel that they do not need to take the BEE into account. But when a company gets smaller, the BEE has a big impact on the employment.

Conclusion

We want to conclude this study by adding a personal note. The trip to South Africa has been very instructive to both of us. We learned a lot about South Africa and it was a real eye-opener concerning ICT in a different culture (as the title of the course already says). We had a completely different image of South Africa before we came there and it was very interesting to learn things that you normally, as a tourist, would not come in contact with. We are very glad the sponsors and the Radboud University gave us the opportunity to see, hear, learn and experience how different cultures and countries contribute to the information technology worldwide.

References

[HOF94]   G. Hofstede. The Business of International Business is Culture. International Business Review, 3(1): 1-14, 1994.