Title

A needs assessment of outsourcing information technology and business services to rural areas in South Africa

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Declaration

I, Vhumbani Ramagondo, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

Vhumbani Ramagondo

Signed at 166 South Road, Lindhaven on the 03 day of August 2021

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1. Abstract

The purpose of this study was to investigate the perception of South African organisations on the rural outsourcing of their Business Processing and Information Technology services. This study is based on a questionnaire survey conducted on South African organisations. The goal of this survey is to determine the perceptions of people concerning the attractiveness of potentially outsourcing their services to rural areas. Results of the study show a negative perception towards the attractiveness of rural outsourcing. The results also highlighted the factors that are contributing to this negative perception of rural outsourcing.

The findings of this study have several implications for the viability of a rural outsourcing market in South Africa. The results also provide both potential rural outsourcing suppliers and clients with an assessment of the potential of rural outsourcing business processing outsourcing (BPO) and information technology outsourcing (ITO). The study also makes a valuable contribution to the outsourcing industry by identifying the business process and information technology services that are most suitable for rural outsourcing.

Keywords:

BPO

ITO

2. Introduction

The adoption of global business services sourcing strategies has been on the rise over the past ten years. An important concept driving the increase in global sourcing is the concept of globalisation. Globalisation refers to a process in which people and organisations are starting to interact and transact on a global scale, due to advancements in technology and transportation. Friedman (2005) conceptualised globalisation as the flattening of the world. According to Friedman (2005), globalization signifies the level playing field that all countries would have to compete in, for resources such as labour.

Technology as an enabler of business is eradicating the barriers that once limited organisations to a single location. Typical fortune 500 companies are using as many as 10,000 suppliers to bolster their capabilities so that they can achieve their goals (Mancher, Lowes, Tarsh, and Ahn, 2014).

There are two primary methods of distributing work across an organisation. The first method is insourcing which refers to a company using its own infrastructure and resources to accomplish a task. The second method is outsourcing. This refers to using a party not affiliated to the organisation to accomplish a particular task (Elliot, n.d.; Moe and Hanssen, 2012).

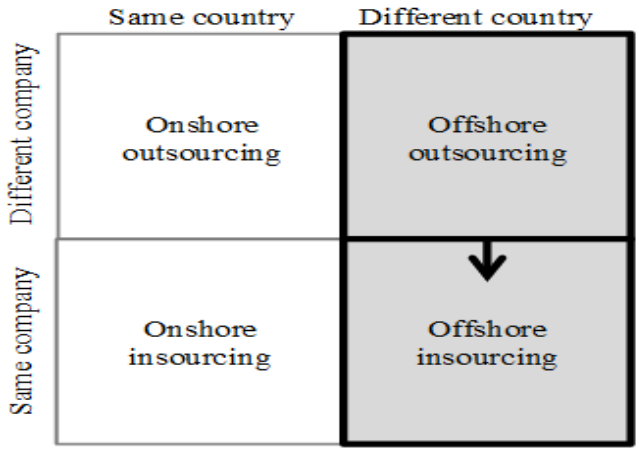

Figure 1: Types of sourcing arrangements (Moe and Hanssen, 2012)

Rapid development in the technology environment is creating a demand for skilled technology professionals. It is this demand that is also driving organisations towards different types of sourcing arrangements such as the ones

in Figure 1: Types of sourcing arrangements (Moe and Hanssen, 2012) as a way of accessing the skills that they require to realise the overall strategy of an organisation.

Service sourcing strategies give organisations the agility needed to close the gap between the supply and demand of skilled resources. The dominant countries in the offshore services sector tend to have an oversupply of skilled resources, hence the diminished cost of resources in those countries (Omoju, 2017). Countries that offer a low cost of labour, a regulatory environment that is conducive to doing business and easy access to raw materials are attractive to organisations seeking to form a strategic partnership with an outsourcing provider. So, it is no surprise that countries such as China and India are high on the list of global service providers (Wiesmann et al., 2017) because they meet the three most important outsourcing requirements mentioned above.

Countries such as the Philippines have established themselves as a service offshore destination and are competing with countries such as India and China (Munoz and Welsh, 2006). Based on comparative cost analysis by Altman (2015), South Africa is suggested to have a higher cost of labour than the Philippines. The actual figures for the cost analysis suggested that 58% of the cost is spent on labour in South Africa while in the Philippines labour only accounts for 50% of the cost. Hence, countries that want to compete in the outsourcing market globally need to present a positive comparative advantage to the organisations they hope to attract to their shores.

The need to drive costs down has given rise to outsourcing strategies such as rural outsourcing. Rural outsourcing is the practice of outsourcing work to a non-urban, low-cost location (M. Lacity, Carmel, and Rottman, 2011). According to (LaBella, 2012) rural outsourcing has the potential to be a competitive alternative to offshore outsourcing if the combined cost of labour, facilities cost and support staff of the rural outsourcing supplier remain lower than the offshore outsourcing supplier. Urban areas are usually associated with a high facility cost when compared to rural areas. The cost of outsourcing is inversely proportional to the city tier where outsourcing operations are. Hence, the reason that rural outsourcing mainly allows clients and suppliers to exploit the low infrastructure

cost associated with non-urban areas. Major exporters of outsourcing in countries such as India also view rural outsourcing as a potential way to sustain India's cost competitiveness in the global outsourcing markets (Majumder and Sharma, 2014).

Firms have a choice between a more captive and a less captive approach to rural outsourcing. In the more captive approach, firms maintain control of the infrastructure and resources required to deliver specific services. However, with the less captive approaches, firms depend on third parties to provide resources and infrastructure that will allow the client firms to accomplish tasks. Unlike traditional outsourcing and offshoring, there are very few companies implementing a captive model of rural outsourcing.

The potential of African countries to become global outsourcing destinations is slowly increasing, with countries such as Ghana, Nigeria, Egypt, Mauritius and South Africa in the race to become a leading offshore services destination (Omoju, 2017). According to a report done by consultancy firm Elix-IRR (2015), South Africa is in the best position to become a leading outsourcer because of its language, time zone, and skills strengths. But to compete on a global scale, South Africa must contend with the so-called Asian Tigers (India and China). Rural outsourcing could offer South Africa the competitive base it needs to further compete or solidify its place in global outsourcing markets.

South Africa has made many inroads regarding becoming a global Business Process Outsourcing (BPO) destination. The efforts were highlighted by an award from the Global Sourcing Association ("South Africa : South Africa wins the Offshoring Destination of the Year Award from the Global Sourcing Association in London," 2016). However, South Africa has not made the same inroads in the export of Information Technology Outsourcing (ITO) services. There's much research that validates the attractiveness of South Africa as a BPO, that won't be the sole focus of this paper. The focus of this paper was the analysis of the attractiveness of domestic rural outsourcing of ITO and BPO. It excludes foreign exporting of ITO because rural outsourcing is envisioned to develop South Africa's IT capability which is a major stumbling block in terms of exporting IT

services globally. Rural outsourcing is envisioned to increase the attractiveness and competitiveness of the local BPO export market.

In this study it is hypothesized that rural outsourcing is an option that is considered in organisations with preference to business processes rather than information technology services with key factors that influence the decision.

The following questions are addressed in the research, in light of the hypothesis as stated above:

- Are South Africa organisations interested in outsourcing any of their services to a rural area, given certain attractive factors that compete with offshore providers (is there a demand for rural outsourcing)?
- What services do South Africa organisations deem to be the most appropriate to rural outsourcing?
- What factors are influencing the attractiveness of rural outsourcing in South African organisations?

3. Literature Review

In studying the decision to outsource services in South Africa organisations Johnston, Abader, Brey, and Stander (2009) recommended that future studies should look at inshoring as a potentially growing trend among organisations seeking outsourcing opportunities. Rural/remote outsourcing represents one such inshoring trend in the outsourcing market, where organisations seek outsourcing opportunities from local service vendors. Despite the interest in rural outsourcing by some countries, Mary Lacity, Rottman, and Khan (2010) noted that there were some skeptics who questioned the value proposition, viability and market potential of rural outsourcing.

3.1 Location attractiveness

When faced with a location decision, certain factors need to be taken into consideration. Verdonk (2010) in his analyses of sourcing location decision factors highlighted two frameworks/models. The first model “The six factor model” by (Farrell, 2006) and the second model A. T. Kearney’s Global Three Factors model. The key factors in most outsourcing location frameworks are: costs, business environment, linkages & trust, the availability of infrastructure, labour resources and specific skills (Verdonk, 2010). The six factor model is considered to be the more detailed of the outsourcing location models, which was a point recognized by Alkali, Abbott, Dasuki, and Quaye (2016) when they compared it to A. T. Kearney’s Global Three Factors model and (Verdonk, 2010) when he compared it to (Carmel, 2003) Oval model.

3.2 Type of sourcing (ownership), outsourcing and insourcing

Several sourcing methods have been developed to enhance certain strategic capabilities. Global sourcing strategies can be viewed as a combination of location and ownership (Kotabe and Helsen, 2009), which are thoughts that align to Figure 1: Types of sourcing arrangements (Moe and Hanssen, 2012). This section will focus mainly on the ownership of business processes or service aspects of specific sourcing methods.

3.2.1 Why are companies moving toward outsourcing and then back to insourcing?

Insourcing and outsourcing refer to the way in which firms choose to distribute work in an organisation, based on specific strategic advantages or disadvantages a firm would like to gain (Elliot, n.d.). The strategic dilemma that most companies have is choosing between the two or finding the right balance between them.

Elliot (n.d.) argued that outsourcing was not a one-way street and that the decision to outsource is based on specific organisations' circumstances which are prone to change. Therefore, the decision to outsource can never be set in stone. Figure 1: Types of sourcing arrangements (Moe and Hanssen, 2012)Moe and Hanssen (2012) highlight the possibility of movements from outsourcing to insourcing in the broader global context. It is common for companies to revert either part or all of their services from outsourcing to insourcing.

According to (Slaughter and Ang, 1996) some of the early reasons that directed outsourcing behaviour may include internal company politics and labour market economics. Outsourcing substantially alters the relationship between the employee and the employer from a long-term to a short-term one (Slaughter and Ang, 1996) which reduces the administrative control that employers have on employees. The responsibility to meet the outsourcing customer's change in demanded workforce is placed on outsourcing suppliers which allows the customer the flexibility to scale base market conditions either up or down.

3.2.2 Outsourcing growth trends

In the USA there has been an increased adoption of outsourcing and offshore models which lead to an increase in part-time employment opportunities but also to a reduction of full-time employment (Weinlick, 2014). The decline in full-time employment tends to have an adverse effect on unemployment, over time.

Deloitte (2016) Global Outsourcing Survey indicated the extent to which organisations are taking part in outsourcing activities. One of the vital stats that can be drawn from this report is that companies were outsourcing for the following reasons in 2016 as shown in Figure 2 below.

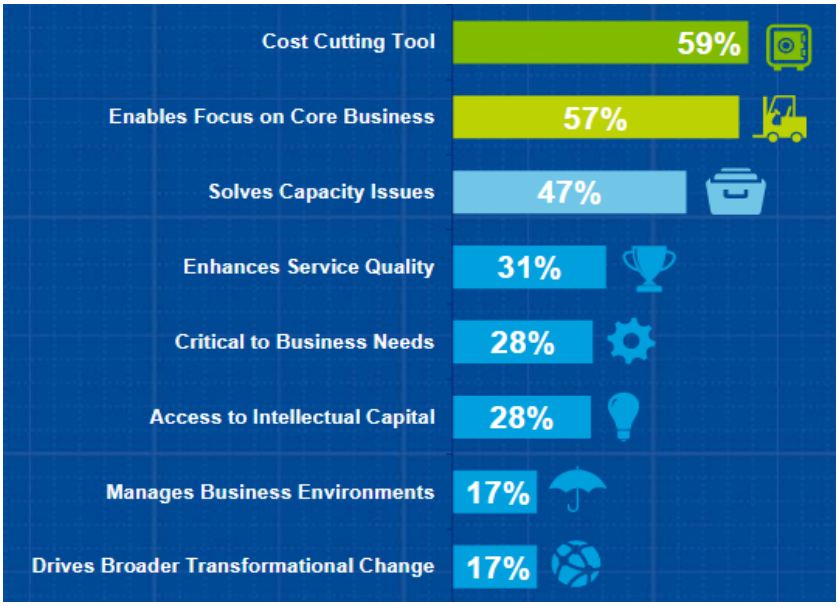

Figure 2: Factors influencing companies outsourcing decision

It is not surprising that cost cutting is still the number one reason for companies to outsource. In a comparison to a pre-1996 analysis of outsourcing behaviour by Slaughter and Ang (1996). (Johnston et al., 2009) in their own study of the status of outsourcing in South Africa, found that local companies are outsourcing for the same cost implication reasons. Specific skill shortages still characterise the IT industry even in the pre-1996 era (Slaughter and Ang, 1996) and things have not changed much because there is still a prevalence of IT skills shortages within various countries.

3.3 ITO and BPO in South Africa

There are two categories of outsourcing. These are Business Process Outsourcing (BPO) and Information Technology Outsourcing (ITO). BPO and ITO as their names suggest refer to the outsourcing or offshoring of business processes and IT services. A business process may refer to activities such as call centre operations, data capturing and help desk services, which essentially include companies' non-IT processes, even though they are IT enabled (Omoju, 2017).

Abbott (2013) dismissed the ability of African countries to succeed in the exporting of IT services (ITO). Prior to that (Johnston et al., 2009) questioned why South African outsourcing vendors weren't making an advancement in IT

services outsourcing; in comparison to countries such as India and China. However, some research also supports the success of African countries exporting business process services (BPO) (Altman, 2015; Omoju, 2017). BPO can be seen in the popularity of call centres in countries such as South Africa.

Low-end and high-end BPO work is differentiated by the expertise required by a worker to complete the task. Abbott (2013) believed that it is the expertise required for different levels of BPO that allows countries with an abundance of low-skilled resources to thrive at providing low-end BPO services.

3.4 Types of sourcing based on location

3.4.1 Nearshoring

Nearshoring may be defined as outsourcing services to a foreign country that is relatively close in distance and time zone differences. The location of the supplier is usually closer than that of an offshore vendor.

The characteristics that make up a nearshoring supplier include the following (Kvedaravičienė, 2008):

- It is closer than an overseas supplier.
- Having a similar cultural background as the outsourcing country; and
- Having lower wages when compared to onshore operations.

3.4.2 Offshoring

The concept of either outsourcing or insourcing specific company processes and services to an advantageous location in a foreign country (Johnston et al., 2009) is known as offshoring. The term farshoring can also be used in reference to offshoring, which refers to the distance between the home country of the outsourcing client and the vendor (Verdonk, 2010). Companies that choose to offshore some of their non-core activities may face challenges such as cultural differences, language barriers and time zone differences (Mary Lacity et al., 2010). South Africa has a recognised language advantage in terms of providing business process services to English speaking countries.

3.4.3 Reshoring

Re-shoring refers to the bringing back of outsourced services to the country where a company's headquarters are located (Ocicka, 2016). Motivations for companies to re-shore their business operations may come because of a decrease in the total cost of operating a specific offshore activity in the country of origin. Agnese and Ricart (2009) compared offshoring to comparative advantage in economics where the goal of the organisation is to exploit a comparative advantage through utilising a cheaper labour force in a foreign destination.

In the analysis of the different definitions of re-shoring Benedikt, Jochem Ronald, Per, and David (2017) came to the conclusion that re-shoring can be asserted by the following:

- Re-shoring is a location decision, meaning that re-shoring can occur based on an initial reference point, which could be the home country or the area of competitive advantage.
- Offshoring needs to have occurred for re-shoring to occur because re-shoring is the reversal of offshoring.

3.4.4 Onshoring/inshoring

Onshoring, refers to the phenomenon in which a company would opt to maintain its business services in a location within the national borders. The reason that firms would want to do this, is that it may be financially beneficial to keep service resources domestic rather than to outsource them to a foreign location (Lee, 2014).

3.5 Rural or remote domestic location outsourcing

An alternative to the more common types of sourcing is rural outsourcing which refers to a practice of outsourcing particular ITO, BPO and KPO activities to a supplier that is based in a non-urban area (Mary Lacity et al., 2010). It can also be defined as the expansion of urban-based industries into the countryside or into a remote domestic location, which is why it is sometimes referred to as Remote Domestic Location Outsourcing (RDL) (M. Lacity et al., 2011).

Two companies from India, Infosys and Wipro, which are major players in the global outsourcing markets are looking to expand more of their operations into rural areas (Singh, 2009). They are exploring setting-up rural operation centres as a means of decreasing their operating cost, so that they can be more open to lower-priced markets such as the local ones. India is also one of the countries that is recognised as having an enormous informal economy. Manufacturers of traditional Indian garments have created an informal rural outsourcing ecosystem that is threatening the businesses of garment makers in the urban areas (Chattaraj, 2015). In the United States of America (USA), some rural outsourcing suppliers have already popped up and are showing good signs of growth (Mary Lacity et al., 2010).

3.5.1 Motivational factors of rural outsourcing

Factors behind the growth of the rural outsourcing industry in the USA, is the move for companies to re-shore some of their activities because of government legislation which prevents companies receiving government bailouts if they are engaged in offshoring (Mary Lacity et al., 2010).

The advancement of communication technologies, mainly the diffusion of broadband and internet services is one of the key drivers of BPO (Altman, 2015). Because of the increased connectivity provided by the internet and increases in transport infrastructure, IT services can be provided from anywhere in the world. Some companies have started adopting ubiquitous working models. The adoption of ubiquitous working models allows for less location specific work, which gives companies a greater opportunity to outsource services further and further away from their original bases of operations (Chattaraj, 2015).

One of the drivers for rural outsourcing in South Africa is the need to create more employment opportunities because a large part of the South African population remains unemployed.

3.5.2 Deterrents to rural outsourcing

Some of the aspects that disqualify African countries from providing IT services include the following (Abbott, 2013; V V Ravi, 2013):

- Lack of sufficient IT skills.
- Availability of electricity.
- Availability of infrastructure.
- Access to funding.

One of the fears of rural outsourcing suppliers in India was that their clients could find cheaper suppliers operating in more competitive rural areas (Chattaraj, 2015). This can lead to a price war among rural outsourcers which could bring the price further down. The fears of suppliers leads one to question the sustainability of the rural industries if their only competitive advantage is location.

One of the essential factors determining the knowledge level of work a country's workforce can provide is indicated by the availability of skilled labour. Another key attribute that is vital to the viability of rural outsourcing operations is the ability to attract enough talent (Gale, 2012; Mary Lacity et al., 2010).

Omoju (2017) stated that the lack of skills is a problem that affects many African countries. He also believes that the problem stems from an under investment in education. The availability, training and retention of skilled resources are some of the challenges that rural BPO providers in India are facing which limits their scalability and sustainability (V V Ravi, 2013). Some rural outsourcing suppliers are solving the talent problem by forming strategic partnerships with nearby academic institutions. Universities have an infinite pool of talent which can be acquired by the right value proposition (Kinkade, 2013).

3.6 Conclusion

Analysing all the aspects related to the attractiveness of a country as a rural or as a urban outsourcing destination; South Africa can use its attractiveness and readiness in rural outsourcing to increase its competitiveness as a major global outsourcing destination. The literature highlights that South Africa is still an emerging exporter of BPO. There are several reports that highlight the potential of South Africa for becoming a global exporter of BPO. However, there are similar reports that are doubtful about South Africa's ability to offer ITO. There is still fierce competition among countries exporting their capabilities, with each of them

finding new ways to increase their competitiveness. The major aspects that these countries compete on are cost and capability.

Rural outsourcing presents a potential cost lever that all competing outsourcing suppliers can pull to adjust their competitiveness in local and global outsourcing markets. Emerging countries can utilise the opportunity to grow its outsourcing potential and make some inroads into the exporting of ITO. Taking the international aspects into account, domestic companies should realise the opportunity presented by rural ITO or BPO providers in assisting businesses in meeting their strategic objectives. Large corporations are likely to gain more from setting up rural captive centres than small to medium enterprises. The ideal outsourcing option for smaller business should be non-captive centres that provide required services at a lower total cost of ownership.

Determining the type of activities businesses are willing to outsource is essential in determining the capability required to provide those activities. Non-core activities that are simple or repetitive in nature can be easily provided by the unskilled labour that can be found largely in the rural areas of the country.

There are potential gains to be made by companies that are willing to adapt their outsourcing strategies to include rural outsourcing. However, there are several obstacles that are deterring companies from adopting rural outsourcing. Providing ITO requires higher skill levels than providing BPO. Therefore, the right capability at a sufficient capacity will be needed to meet businesses' objectives effectively.

Urban areas have the advantage of being well developed with regard to business infrastructure. Therefore, non-urban areas need to be examined for their ability to meet standard business infrastructure requirements, if they are to provide services to any area, irrespective of its development status.

4. Methodology

The purpose of this research study was to analyse the attractiveness of domestic rural outsourcing of Information Technology and Business Process services to South African organisations.

In addition, the study aimed to identify the factors that would make rural outsourcing most appealing to South African organisations. In addition to that, the study sought to determine the rural outsourcing services which are most appealing to South African organisations.

4.1 Data collection

Quantitative research is associated with the planned collection and analyses of numeric data, with the intention of using the data to test theory. Qualitative is often considered the opposite of quantitative research because it involves collecting and analysing non-numeric data with intention of using the data to develop a new theory.

A quantitative research method was adopted to collect the information and data required to answer the research questions presented in this paper. In alignment with the adopted research method, a question questionnaire was constructed as the instrument to be utilized in this research. The questionnaire contained both close-ended and open-ended questions. The open-ended questions allowed respondents to clarify their choices in close-ended questions.

The quantitative research method was adopted for this study because of the deductive approach that is associated with this method. It enables the study to effectively test the hypotheses and objectives regarding rural outsourcing in South Africa. The large sample size considered for this research was best suited by quantitative methods of data collection and analysis.

Driscoll, Appiah-Yeboah, Salib, and Rupert (2007) associated the close-ended and open-ended questions with quantitative and qualitative research methods, respectively. Therefore, the use of both open-ended and close-ended questions in a single instrument could be regarded as a mixed research approach.

However, because of the deductive focus of this research the selected primary research method herein is quantitative.

The qualitative component of the questionnaire enabled the researcher to obtain the insight of the respondents regarding some research questions. This insight provided by the respondents were used in conjunction with the quantitative results, to form a descriptive understanding of the overall research results.

A framework by Farrell (2006) was used to design a questionnaire that was designed to capture the respondent's attitude and feelings towards factors impacting the attractiveness of rural outsourcing. A questionnaire was chosen as the research instrument because of its suitability in providing access to a large number of respondents', while presenting minimal cost.

4.2 Sample

The population sampled in the survey included companies that are clients or suppliers of outsourced Information Technology or Business Process services in South Africa. The survey targeted individuals with varying degrees of outsourcing decision-making authority in their respective companies. A self-selection sampling method was applied in the distribution of the survey via email and social media platforms, LinkedIn and WhatsApp.

Self-selection sampling was selected in order to solicit the participation of units of relevance in the research study. The self-selection sampling technique was chosen as a result of difficulties that were experienced in obtaining direct access to companies and participants that fit the sample frame. Personal and professional references were then used by the researcher in order to obtain participants.

4.3 Assumptions

The "six factor model" is comprised of six factors which are availability of skills, cost, environment, market potential, risk profile, and quality of infrastructure.

This research considers the factors that business can control such as cost, availability of skill, quality of infrastructure. Factors such as the environment, market potential and risk profile are seen as factors external to the business. Studying these excluded factors would require a different research instrument to the chosen instrument of this study. Respondents view low costs, high availability of skills and excellent quality of infrastructure as key antecedents to selecting an outsourcing location. Keeping costs low is generally attractive to most businesses. Individuals that are part of companies that are either clients or suppliers of outsourced IT-BP would have had input into their company's outsourcing decisions. Respondents can only provide answers in relation to the rural areas they have interacted with.

4.4 Limitations

The sample ***in this study*** consists of 31 respondents which is indicative of the low response rate. In light of this the response rate may be indicative of inadequate representation of the of the total ITO and BPO market in South Africa. However, this sample may be viewed as acceptable to merely provide a small perception of the rural outsourcing market. Due to the choice of self-selection sampling, which allows research candidates the ability to refuse participation, the resulting participants at the end of the study may not represent the target population which is known as self-selection bias (Lavrakas, 2008). To prevent such bias, self-selection could be used in conjunction with probability sampling.

The chosen research instrument may not be effective at ascertaining the in-depth perception of participants. Hence, providing an opportunity for participants to elaborate on their answers is meant to minimise that ineffectiveness.

4.5 Data analysis

A descriptive analysis of quantitative data was undertaken with the aim of comparing such data with a categorised form of qualitative data. Through descriptive analysis the researcher was able to answer provided research questions. The descriptive analysis was conducted through cross tabulation in Qualtrics. Qualtrics provided the ability to perform multivariate analysis on two

more variables. It also provides the ability to test the statistical significance (relationship) of two variables using the Chi-Squared statistic value.

5. Results

This section of the report contains a summary of the results from thirty-one (>80% survey completion) survey respondents. The survey was distributed to only a hundred and twenty individuals who were within the defined sample frame. Of the one hundred and twenty surveys distributed, forty-nine people responded to the survey. Of the forty-nine people who responded to the survey nineteen did not adequately complete the survey, which then resulted in an actual response rate of 25% (30/120*100).

A majority of the respondents; 89% of them indicated that they had some degree of input into their organisation's decision to outsource services. This majority corresponded well with the level of participants required for this research. The profile of the respondents can be further broken-down in terms of their organisational role, with 14% of the respondents being holders of C-level executive positions, within their respective companies (see Table 1 below).

Table 1: Profile of the respondents' organisational roles

Entry Level	**7.40%**
Analyst/Associate	22.20%
Manager	18.50%
Senior Manager	25.90%
Director	11.10%
C-Level executive (CIO, CTO, COO, CMO, Etc)	11.10%
CEO/Owner	3.70%

Based on the indication of the number of employees that work for an organisation it can be deduced that the results mostly represent small companies. The resulting sample was taken from about twelve organisations. The combined responses from small (25-499 employees) and micro (1-24 employees) companies represents 62.9% (29.6% and 33.3% respectively) of the sample collected.

To determine the types of services that South African organisations are most willing to outsource to rural areas, respondents were asked to select the BPO

and ITO services which they deemed most appropriate for rural outsourcing. In the question, a set of thirteen and seven BPO and ITO services respectively, were provided for selection. The BPO and ITO services provided for selection represented jobs with a varying degree of skills requirements. According to the results, the BPO services that were deemed to be most appropriate for rural outsourcing were “Call center and customer support” and “Production and development”.

These two services showed a popularity level of 29.58% and 15.49% respectively, in comparison to the other BPO services that were available for selection. The results also showed that “IT help desk and support” (28.57%) was regarded as the most appropriate ITO service to be outsourced to rural areas. Thereafter, came “Infrastructure and data centre” (19.05%) and then came the remaining other services which are summarised in Table 2 below.

Table 2: Most appropriate ITO service for rural outsourcing

IT help desk and support	**28.57%**
Infrastructure and data centre service	19.05%
Application development	14.29%
Application testing	14.29%
Desktop and workplace management	9.52%
Application design	7.94%
Application management	6.35%

The next research question sought to determine whether South African organisations were willing to do rural outsourcing of any of their in-house or offshore operations. The respondents were asked to do this by indicating the percentage of services that they thought their organisation would be willing to outsource to rural locations. The results showed a slight willingness to outsource some BP and IT services to rural locations. However, based on an average willingness of (28.58% for ITO and 26.77% for BPO), there was no real difference between the desire to outsource either ITO or BPO services to rural locations. Moreover, this indicated that there isn’t a significant demand for rural outsourcing services.

To determine the impact that different factors have in influencing a company's decision on rural outsourcing, the respondents were asked to rate the importance of each factor in influencing the decision to consider rural outsourcing as a potential alternative to other outsourcing methods. From the mean scores of each of the factors, it can be seen that the "availability of skills" (70.03) has the most influence on an organisation's decision to rural outsource. Thereafter, comes the need for "infrastructure availability" (68.86) and potential "cost saving" (63.96).

Lastly, some of the respondents provided their own factors which included "a stable power source", "efficiency", "availability of energy and security" and "capable staff". In looking at two attributes that might impact the "availability of skills" in a rural area, we can deduce that the respondents were less concerned about the attrition rate than they were by the level of educatedness of resources they would get from a rural outsourcing location. Participants believed that South African's rural locations didn't possess the skills required to offer business process or IT services. A significant number of the respondents indicated so with a "No" when asked if they thought any rural location had enough skilled individuals to provide ITO or BPO. Moreover, the participants also provided the following reasons to justify their lack of confidence in any rural location providing business processes and IT services.

"Currently labour pool available in rural areas is not readily available for employment and will require intense and continuous training. Support can be offered online and remotely."
"Skilled people tend to migrate to urban areas because of low to no employment opportunities."
"Rural areas in South Africa tend to lag behind in terms of development. Hence, I believe that most schools in your so-called remote areas generally have the resources to offer such technical skills."
"The skills are already limited within the South African context. It is not just the rural areas which has a skills shortage but the urban areas too."
"Time and financial investment to upskill the available human resources will take time but is possible."
"Formal education is not a major factor. Tertiary education institutions are not easily accessible or close to the rural community." *"There aren't that many Universities close to rural areas in South Africa."*

In terms of the “availability of infrastructure”, the participants rated their presupposition of the quality of three infrastructural factors in their consideration of a rural outsourcing location. Telecom’s infrastructure plays an essential part in providing businesses with the connectivity that they require to operate from any location. The participants indicated that they expected a high level of connectivity which can be seen by the high average of 71.89% and a low deviation of 22.89%, which means that most of the participants expected at least 49% connectivity. Their expectation of the quality of real estate was much less than their expectation for connectivity. In terms of electricity availability, an average of 8-80.18% availability would be required by any business that seeks to outsource any of its services to a rural location.

Urbanisation has always been centred around three main locations in South Africa which is a result of historical spatial development. The three locations being Gauteng, eThekwini and Cape Town have been regarded as the core urban regions. In terms of identifying situatable regions for rural outsourcing, respondents were asked to select the most attractive town for outsourcing, based on a list of towns that are considered to be remote, and are alongside either a major road or railway line. The following were presented as options, with the results preferred therein, as shown below in Table 3.

Table 3 Most suitable rural outsourcing location

Town	Preferred choice
Nelspruit (Mbombela)	**3.75%**
East London (Buffalo City)	17.86%
Polokwane	**7.14%**
Bloemfontein (Mangaung)	14.29%
Pietermaritzburg (Msunduzi)	**14.29%**
Rustenburg	7.14%
Richards Bay	**5.57%**
Witbank	5.57%
Kimberley	**5.57%**
Thohoyandou	14.29%
Other	**10.71%**

6. Discussion

6.1 Rural outsourcing demand

An analysis of the data brought about interesting results with regard to the willingness of South African organisations to outsource to rural locations. South African companies have shown a relatively equal appetite for the rural outsourcing of either business process services or information technology services. The successes of South Africa's BPO market are well documented and recognised across the world. Hence, it is surprising to see companies having a relatively equal demand for rural BPO and ITO. This could be due to the fact that the business case for rural outsourcing has yet to be proven. Outsourcing either BP or IT services can be associated with a similar risk to South African organisations.

In-terms of rural outsourcing suppliers being competitive differentiators in the outsourcing industry, they would need to ask themselves the following question: How will their company leverage rural outsourcing to support their buyers in the best possible way? (BPESA, 2019).

6.2 Most appropriate rural outsourcing services

Companies that are considering outsourcing to any location need to contend with the issue of talent quality and availability. The services that companies need, require varied levels of skills. With unemployment being at an all-time high in South Africa, there is no doubt that the country has an abundance of labour that is suited to doing varying levels of work. However, the supply of highly skilled labour isn't as prevalent. It is this deficit in labour that leads companies to send their knowledgeable work offshore instead of nearshoring it. Unfortunately, rural locations are perceived to be affected more by the deficit of skilled labour compared to urban areas. However, it can be argued that it is the deficit of opportunities in the rural areas that causes skilled people to migrate to the cities.

Government plans such as the Draft National Spatial Development Framework 2019) are meant to address these challenges. Examining the results,

organisations showed a lot of confidence in the rural outsourcing of low-end BPO and ITO work such as “Call center and customer support” and “IT help desk and support”. Having said that, the most appropriate services to be provided by a rural outsourcing supplier in South Africa would be any BPO or ITO services that require entry-level skills. Any supplier seeking to compete in the outsourcing industry using rural outsourcing as a strategy, should focus on establishing themselves as providers of low-end BP and IT work.

6.3 Factors influencing rural outsourcing

Omoju (2017) simply defined the attractiveness of a location as the perceived ability of a location to provide the necessities, environment and benefits that are supposed to be available when outsourcing to that location. South African companies seem not to be convinced about the “availability of skills” in the rural areas. This carries the most influence in an organisation’s decision to outsource to rural areas. Moreover, this goes against the norm of cost reduction being the most influential factor in an organisation’s consideration of outsourcing.

Organisations can change this negative perception to a more positive one by investing their time and some of their resources in training workers to make them more employable. By doing this, companies will be implementing a strategy of impact sourcing which, according to Jon Browning in the BPESA (2019) Report, is a competitive strategy which would allow employers to realise benefits such as low attrition rates, higher levels of employee motivation and access to a new labour market. Outsourcing vendors can potentially allow employees to work from the rural locations they might have migrated from, as a way of developing a culture of working from anywhere, including rural locations.

The availability of infrastructure was regarded as having the second highest influence on an organisation’s ability to provide BP and IT services. South Africa’s overall infrastructure rating is considered to be good and complements the country in the provision of outsourcing services (Alkali et al., 2016). This assertion made by Alkali et al. (2016) was based on the analysis of infrastructure in urban areas. However, rural areas show little signs of development and investment in

infrastructure, which diminishes their ability to provide services efficiently in a rural area.

The government is actively trying to contribute to the growth and development of the BPO sector. One such initiative that represents government's investment in the BPO sector is the Tshwane BPO park project. This project represents a R300 million investment into addressing the supply side factors for BPO operators (Nxumalo, 2017).

The project was envisioned to create a demand for BPO services by addressing the infrastructure requirements for outsourcing vendors and clients. Moreover, it was meant to contribute positively to the social upliftment of people in the outlying areas of the capital city. Construction of the Tshwane BPO park officially began in 2016 and six years later, it is still incomplete. The construction was impeded by issues related to a change in political leadership. The lack of progress in completing this project robs the nation of an opportunity to create jobs and stimulate growth in the economy. The failure of such a project is essential to the outsourcing market because this project potentially represents a concept of an outsourcing infrastructure development that could have been used as an ideal development template for BPO and ITO in rural areas.

South African economic activity is centred around three main regions: namely, Gauteng, eThekwini and Cape Town. The concentration of economic activity into these three core regions presents both benefits and challenges. The *Draft National Spatial Development Framework* 2019) sought to address these challenges, which are seen as a product of the spatial legacies of colonial and apartheid rule.

The National Spatial Development Framework (NSDF) presents a plan that aims to decentralise economic activity from three main hubs without discarding benefits already realised from having these three economic hubs. The decentralization of economic activity serves as the foundation to developing rural locations in the country. The country can achieve decentralization of the economy by strengthening development in anchor towns with the intention of elevating them into economic hubs. Anchor towns are seen as densely populated towns on

strategic routes, that show immense growth potential. Anchor towns represent attractive locations for the establishment of rural outsourcing, because of their existing infrastructure. However, further work still needs to be done to develop anchor towns in rural locations if these are to become economic hubs, as envisioned in the NSDF.

7. Conclusion

The attractiveness of rural outsourcing can be improved by addressing two main factors. These are the Availability of Skills and Infrastructure.

Potential rural outsourcing operators need to focus on providing low-end BPO work because by doing so, they will have access to a much bigger talent pool. In addition to this potential rural outsourcing, vendors and government need to work together to reduce the shortages in IT skills in the country. Lastly, the low entry skills associated with the provision of BPO need to be augmented and enhanced so that the local outsourcing market increases the attractiveness of ITOs.

The study has determined that both the BPO and the ITO are equally suitable for rural outsourcing. Hence, the investment to establish these services in a rural area needs to be equally invested in both these services.

South African companies who are offshoring need to be encouraged to reshore their services. Reshoring of services by local companies would increase the demand for outsourced services. The increase in demand would benefit any potential rural outsourcing operators. The government can drive local outsourcing clients towards the behaviour of onshoring services, by offering incentives such as tax breaks or subsidies. These incentives will offer the outsourcing client the opportunity to make up any cost-benefit lost by onshoring.

Capturing the local outsourcing services market will help vendors to develop a service outsourcing capability that allows local vendors to export services globally. South Africa is not just a cost destination. It's more attractive to outsourcing clients when it's recognised as a value destination. Hence, potential outsourcing vendors need to create a measurable value for their clients by investing in creating services that are undeniably superior to their competition.

Potential rural outsourcing vendors should aim to provide services to companies that already have a presence in the rural areas, where they want to set up operations. Moreover, providing services to existing businesses represents a considerable opportunity for rural outsourcing vendors to attract clients from their operating locations. Rural outsourcing vendors can provide and maintain services

for companies already doing business in remote towns, because it would be more cost-effective and efficient than sending technical resources from urban regions of the country.

The rural outsourcing attractiveness factors observed in this study are seen to have a minor impact on any rural outsourcing vendor's ability to provide BP or IT services from a rural location. Moreover, the rural outsourcing site needs to be carefully selected, based on supporting benefits because South Africa has many small towns with the potential of hosting outsourcing services. Choosing the right rural location could determine whether the outsourcing venture would be successful or not.

The main limitation of this study is the small sample size. Therefore, a similar study with a large sample would be required to generalize the results/findings. In-depth interviews with respondents are further required to provide more contextual data to the empirical study conducted.

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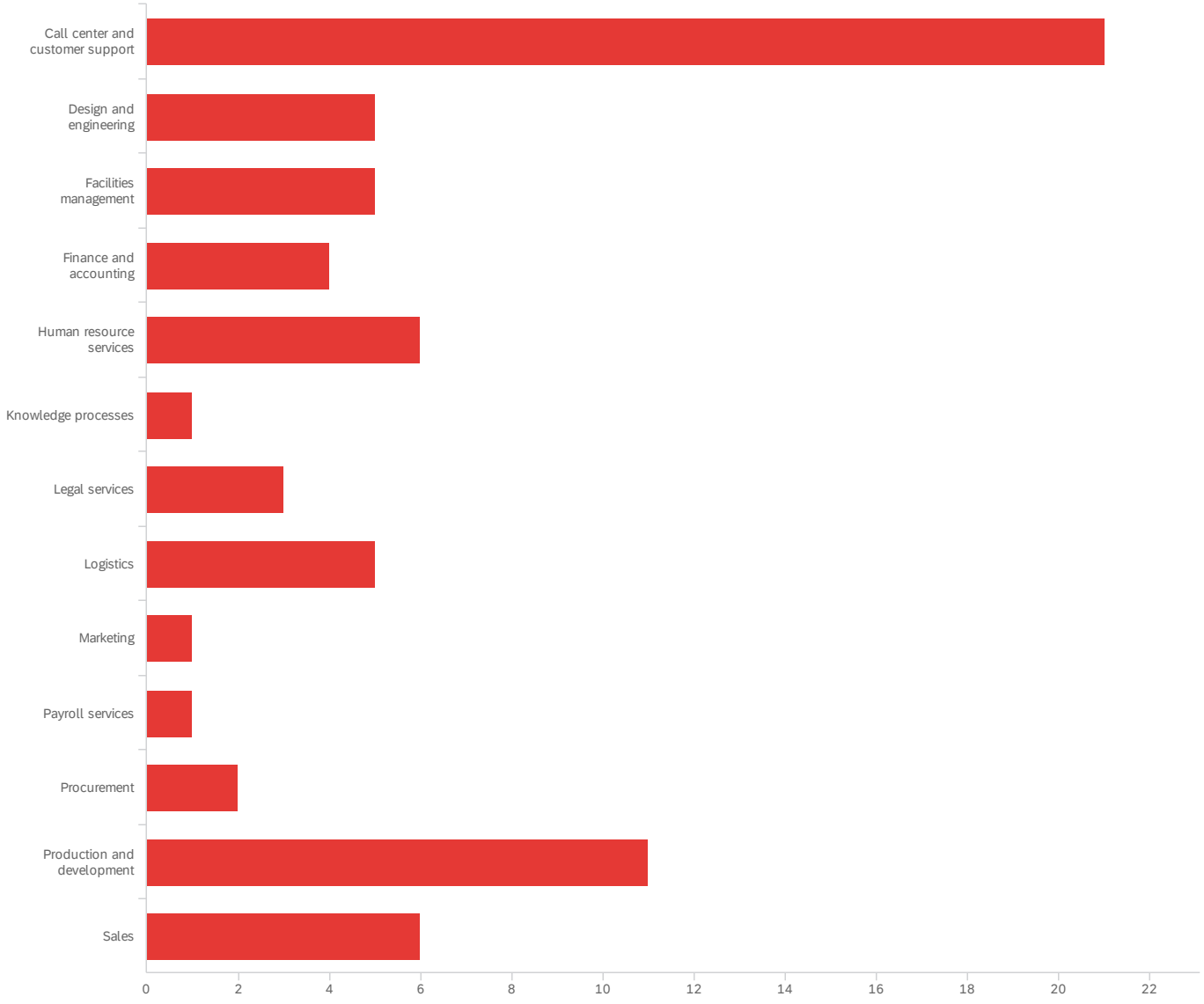
9. Appendix

9.1 Rural_Outsourcing_Results_Report.pdf (Results)

ITO and BPO Rural Outsourcing - Version 2
February 21, 2021 5:48 AM MST

Q1 - Which business process services is your organization most likely to rural outsource?

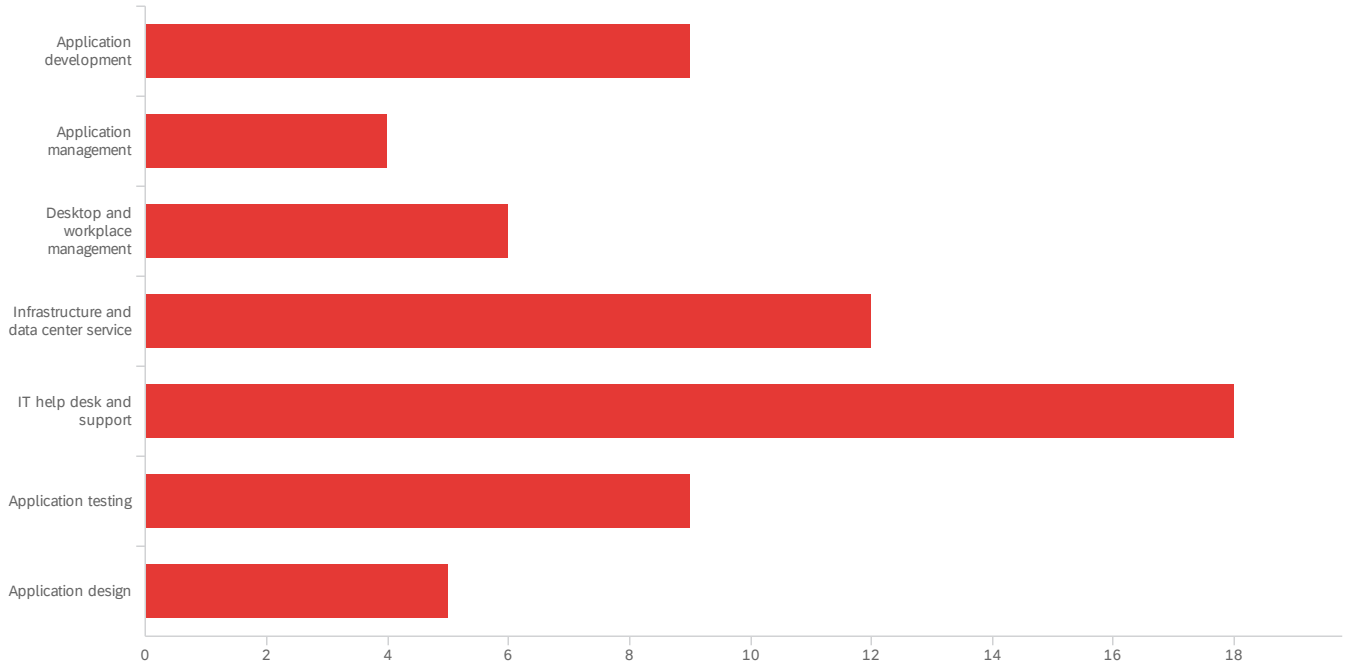


#	Field	Choice Count	
1	Call center and customer support	29.58%	21
2	Design and engineering	7.04%	5
3	Facilities management	7.04%	5
4	Finance and accounting	5.63%	4
5	Human resource services	8.45%	6

#	Field		Choice Count
6	Knowledge processes	1.41%	1
7	Legal services	4.23%	3
8	Logistics	7.04%	5
9	Marketing	1.41%	1
10	Payroll services	1.41%	1
11	Procurement	2.82%	2
12	Production and development	15.49%	11
13	Sales	8.45%	6
			71

Showing rows 1 - 14 of 14

Q2 - Which information technology services is your organization most likely to rural outsource?



#	Field	Choice Count	
1	Application development	14.29%	9
2	Application management	6.35%	4
3	Desktop and workplace management	9.52%	6
4	Infrastructure and data center service	19.05%	12
5	IT help desk and support	28.57%	18
6	Application testing	14.29%	9
7	Application design	7.94%	5
			63

Showing rows 1 - 8 of 8

Q3 - What percentage of IT(Information Technology) services would your organization be willing to outsource to a rural destination?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	percentage IT services	0.00	79.00	28.58	20.95	438.89	31

Q4 - What percentage of BP(Business Process) services would your organization be willing to outsource to a rural destination?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	percentage BP services	0.00	60.00	26.77	17.57	308.82	31

Q6 - Rural outsourcing refers to the phenomenon of outsourcing either an organization IT or business process services to non-urban areas of the country that can be characterized by small population. Rural outsourcing is a relatively new concept, what securities or assurances would your organization require for it to even consider Rural outsourcing? Rate the effect that each of the below factors would have in convincing your organization to try rural outsourcing?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Cost Saving	10.00	100.00	63.96	26.36	694.75	28
2	Skills Availability	20.00	100.00	70.37	23.91	571.71	27
3	Infrastructure Availability	3.00	100.00	68.86	29.97	898.12	28
4	Other	15.00	91.00	58.13	25.98	674.86	8

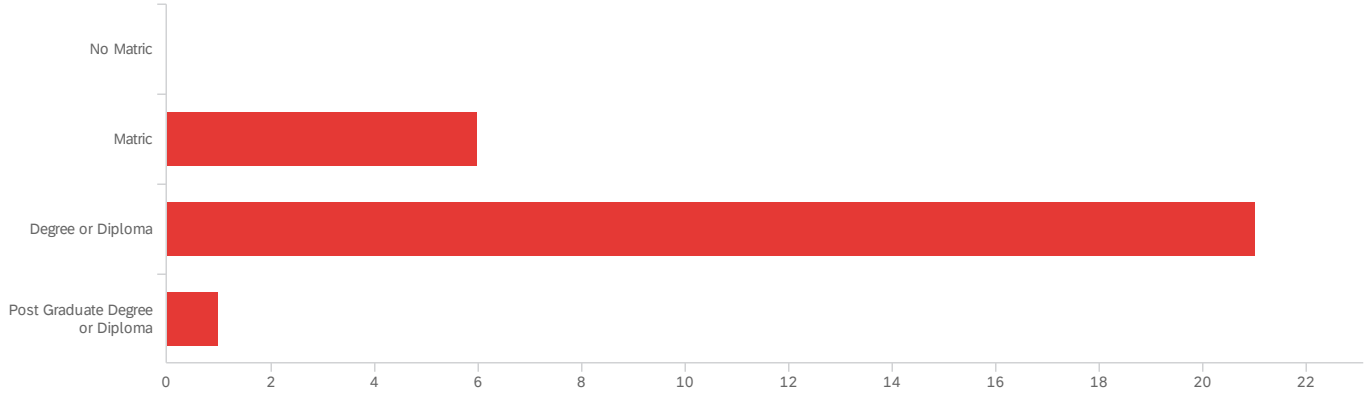
Q7 - If selected "Other", please help use understand why you selected the choice above?

If selected "Other", please help use understand why you selected the choice...
Efficiency
Availability of Energy and security
Capable staff
Stable power source

Q18 - Please the rate importance of the following attributes as criteria for your organization in regards to considering rural outsourcing as possible strategy?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Attrition rate (Churn rate)	0.00	100.00	56.00	25.18	634.00	28
2	Education level	5.00	100.00	64.75	28.12	790.62	28

Q9 - What are the educational requirements for a Business Process service?

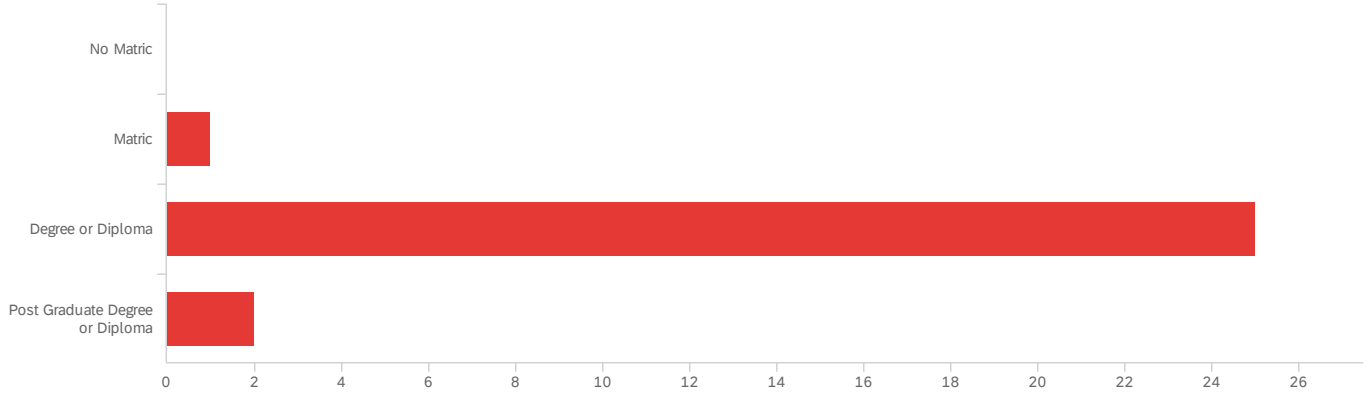


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What are the educational requirements for a Business Process service?	2.00	4.00	2.82	0.47	0.22	28

#	Field		Choice Count
1	No Matric	0.00%	0
2	Matric	21.43%	6
3	Degree or Diploma	75.00%	21
4	Post Graduate Degree or Diploma	3.57%	1
			28

Showing rows 1 - 5 of 5

Q10 - What are the educational requirements for an Information Technology service?

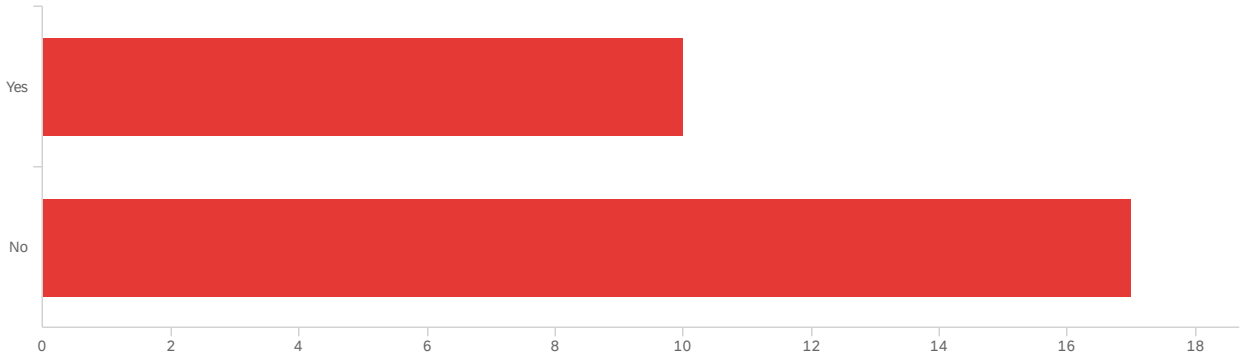


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What are the educational requirements for an Information Technology service?	2.00	4.00	3.04	0.33	0.11	28

#	Field		Choice Count
1	No Matric	0.00%	0
2	Matric	3.57%	1
3	Degree or Diploma	89.29%	25
4	Post Graduate Degree or Diploma	7.14%	2
			28

Showing rows 1 - 5 of 5

Q11 - Do you think South Africa's rural population have the skills required to provide Information Technology (IT) services?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Do you think South Africa's rural population have the skills required to provide Information Technology (IT) services?	1.00	2.00	1.63	0.48	0.23	27

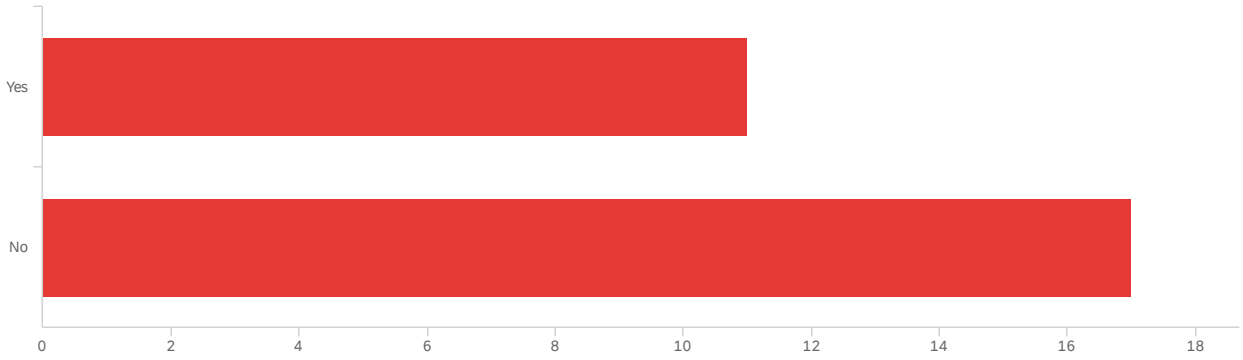
#	Field		Choice Count
1	Yes	37.04%	10
2	No	62.96%	17
			27

Showing rows 1 - 3 of 3

Q12 - If selected "No", please help us understand why you selected the choice above?

If selected "No", please help us understand why you selected the choice abo...
The skilled people have moved to the urban areas to find work
The skills are already limited within the South African context. It is not just the Rural areas which has a skills shortage but the urban areas too.
Rural areas in South Africa tend to lag behind in terms of development. Hence I believe that most schools in your so called remote areas generally have the resources to offer such technical skills
There aren't that many Universities close to rural areas in South Africa.
There are no available skills in Rural areas as evidenced by the high urbanization
formal education is not a major factor. tertiary education institutions are not easily accessible or close to the rural community
Access to the right level of education would be a challenge.
South Africa is rated as one of the lowest education location on the planet
Education
Skilled people tend to migrate to urban areas because of low to no employment opportunities.
Urban migration of skilled labor
Training required, lack of resources, few people to encourage them to get into IT
Currently labour pool available in rural areas is not readily available for employment and will require intense and continuous training. Support can be offered online and remotely.
The majority of rural communities have poor matric result

Q13 - Do you think South Africa's rural population have the skills required to provide Business Process(BP) services?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Do you think South Africa's rural population have the skills required to provide Business Process(BP) services?	1.00	2.00	1.61	0.49	0.24	28

#	Field		Choice Count
1	Yes	39.29%	11
2	No	60.71%	17
			28

Showing rows 1 - 3 of 3

Q14 - If selected "No", please help use understand why you selected the choice above?

If selected "No", please help use understand why you selected the choice ab...
business process is defined within the business and it should not be outsources at all, especially to the rural communities.
Brain drain
Quality of Education
Same as before. Its a country wide issue
BPM is field that requires an interdiscplinary approach. Very unlikely that one can find such skills in the rural areas.
Unsure of what business skills are available
as has been stated in previous answer
Access to the right level of education
Same as previous answer
Education
Skilled people tend to migrate to urban areas because of low to no employment opportunities.
Urban migration
Lack of experience and strictly followed business process
Currently labour pool available in rural areas is not readily available for employment and will require intense and continuous training. Support can be offered online and remotely.
Time and financial investment to upskill the available human resources will take time but is possible

Q15 - Please indicate the expected level of Telecoms and IT your organization would require in its consideration of a rural outsourcing destination?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Telecoms, IT, and Connectivity	15.00	100.00	71.89	22.98	528.17	28

Q16 - Please indicate the expected availability and quality of real estate your organization would require in its consideration of a rural outsourcing destination?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Real estate	0.00	100.00	61.10	27.26	743.06	29

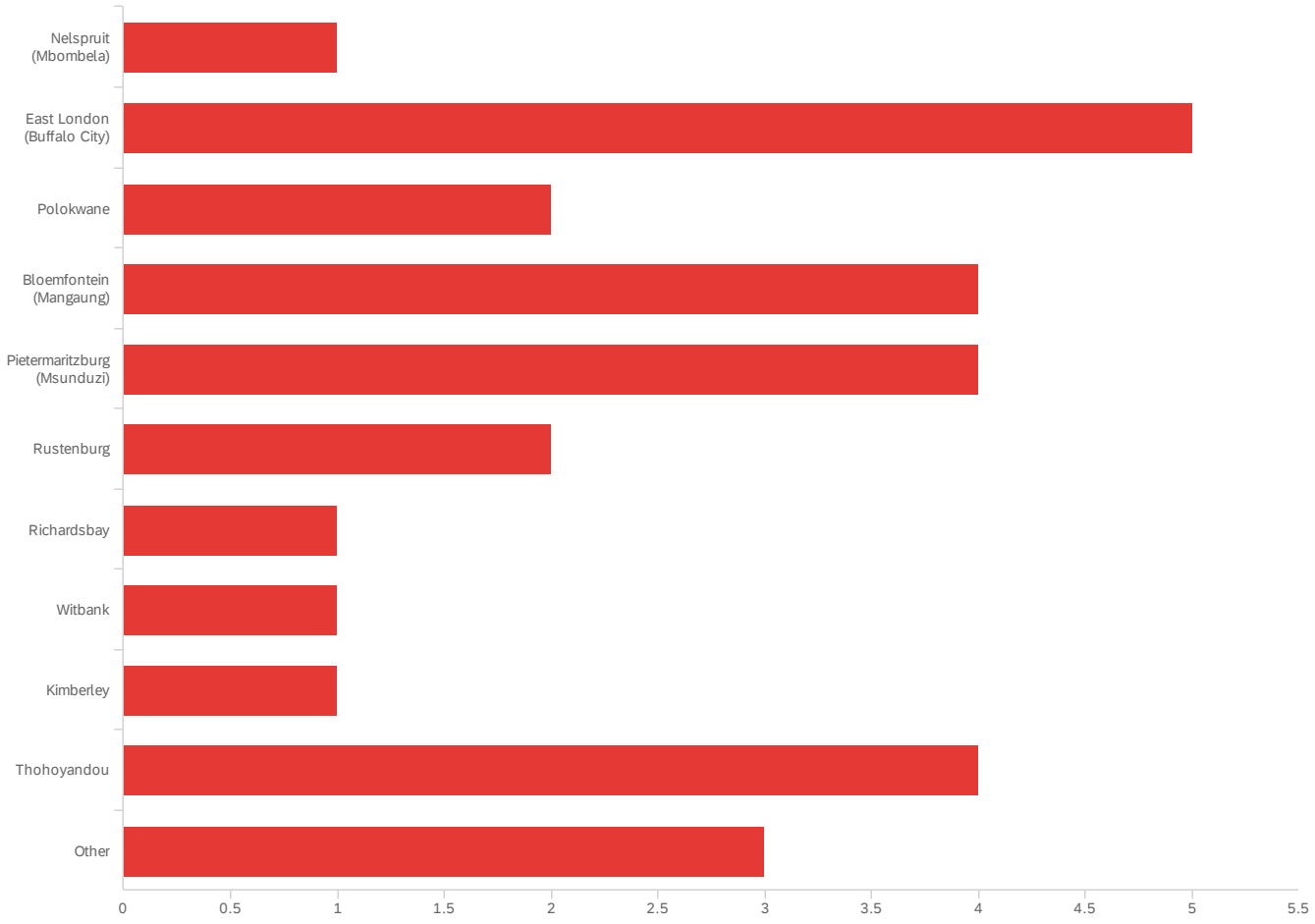
Q17 - As percentage please indicate level of electricity availability your organization would require as assurance from a domestic rural outsourcing destination?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Electricity availability	9.00	100.00	80.18	23.61	557.22	28

Q19 - Please indicate the expected percentage cost savings they would want to realize in considering rural outsourcing as a possible strategic option?

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Percentage cost saving	12.00	97.00	55.39	22.04	485.60	28

Q21 - From the key areas that follow, please select the city/town which you believe would be your most preferred rural outsourcing destination?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	From the key areas that follow, please select the city/town which you believe would be your most preferred rural outsourcing destination?	1.00	11.00	5.79	3.24	10.53	28

#	Field		Choice Count
1	Nelspruit (Mbombela)	3.57%	1
2	East London (Buffalo City)	17.86%	5
3	Polokwane	7.14%	2
4	Bloemfontein (Mangaung)	14.29%	4

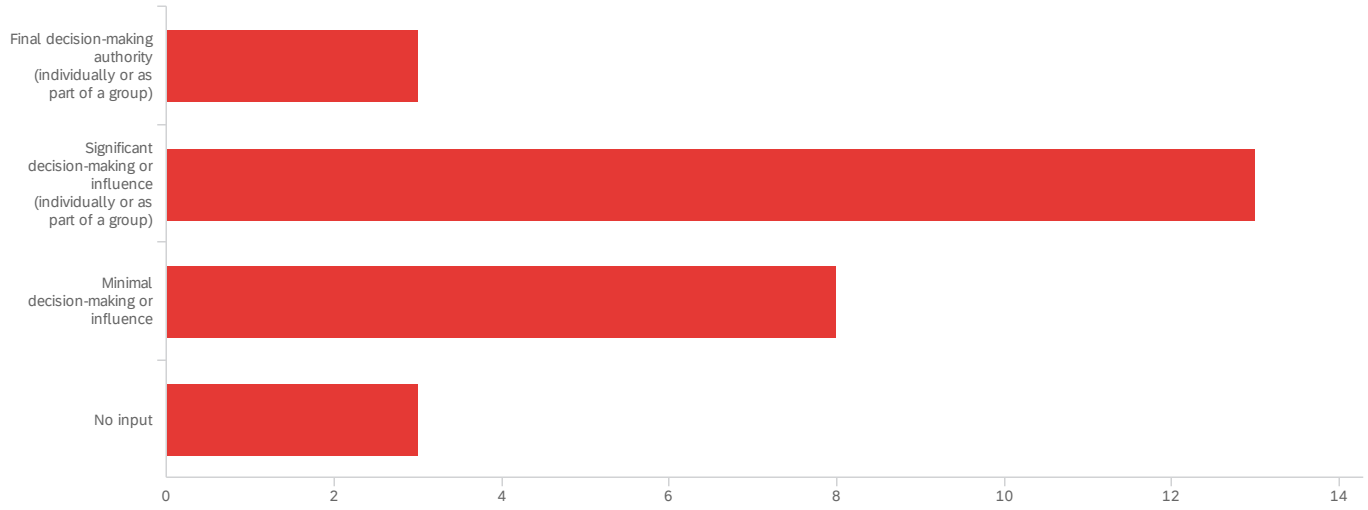
#	Field		Choice Count
5	Pietermaritzburg (Msunduzi)	14.29%	4
6	Rustenburg	7.14%	2
7	Richardsbay	3.57%	1
8	Witbank	3.57%	1
9	Kimberley	3.57%	1
10	Thohoyandou	14.29%	4
11	Other	10.71%	3
			28

Showing rows 1 - 12 of 12

Q22 - If other please specify preferred option

If other please specify preferred option
India
Cape Town Boland

Q27 - What level of decision-making authority do you have on the outsourcing of services (IT or Business Processing) in your organization?

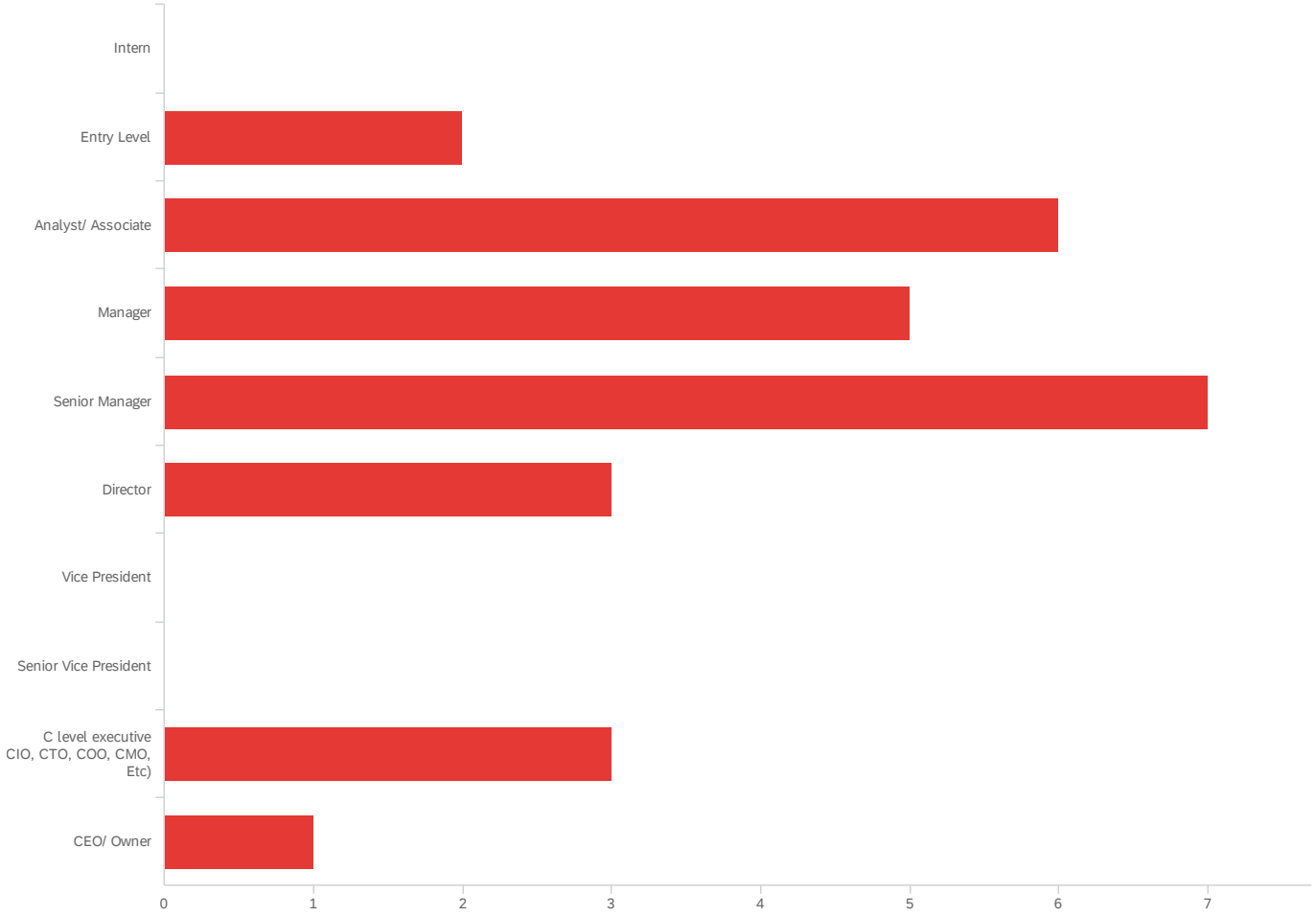


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What level of decision-making authority do you have on the outsourcing of services (IT or Business Processing) in your organization?	1.00	4.00	2.41	0.83	0.69	27

#	Field		Choice Count
1	Final decision-making authority (individually or as part of a group)	11.11%	3
2	Significant decision-making or influence (individually or as part of a group)	48.15%	13
3	Minimal decision-making or influence	29.63%	8
4	No input	11.11%	3
			27

Showing rows 1 - 5 of 5

Q26 - Which of the following most closely matches your job title?



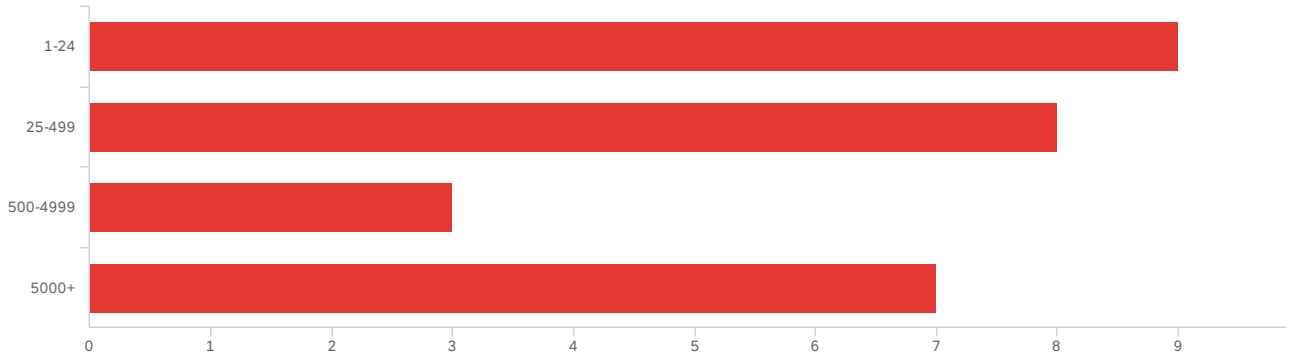
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Which of the following most closely matches your job title?	2.00	10.00	4.89	2.13	4.54	27

#	Field		Choice Count
1	Intern	0.00%	0
2	Entry Level	7.41%	2
3	Analyst/ Associate	22.22%	6
4	Manager	18.52%	5
5	Senior Manager	25.93%	7

#	Field		Choice Count
6	Director	11.11%	3
7	Vice President	0.00%	0
8	Senior Vice President	0.00%	0
9	C level executive (CIO, CTO, COO, CMO, Etc)	11.11%	3
10	CEO/ Owner	3.70%	1
			27

Showing rows 1 - 11 of 11

Q28 - Counting all locations where your employer operates, what is the total number of persons who work there?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Counting all locations where your employer operates, what is the total number of persons who work there?	1.00	4.00	2.30	1.18	1.39	27

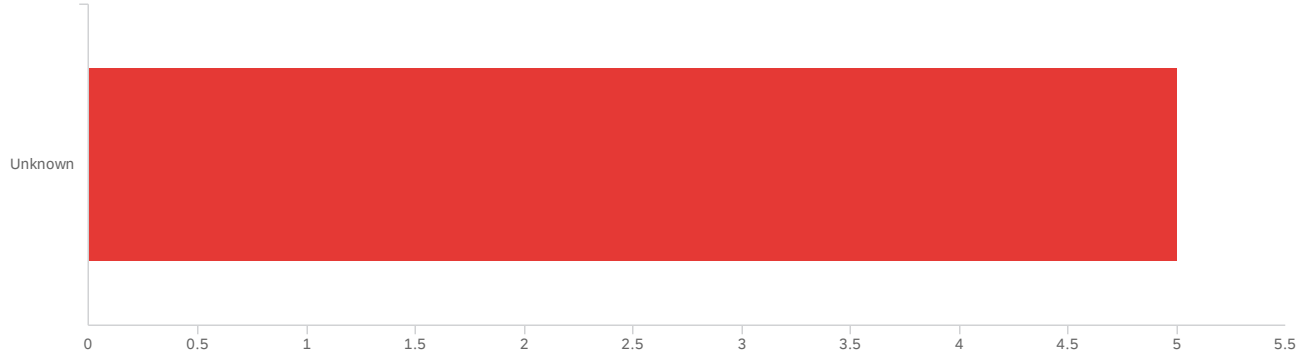
#	Field		Choice Count
1	1-24	33.33%	9
2	25-499	29.63%	8
3	500-4999	11.11%	3
4	5000+	25.93%	7
			27

Showing rows 1 - 5 of 5

Q29 - Please specific the name of the organization you work for?

Please specific the name of the organization you work for?
Oneconnect
Ignite
FNB
RMB
Legal Aid South Africa
ABSA
Phumelela
IKMS CONSULTING
FirstRand Bank
A1L Realizations
A1L
3D Projects
OneConnect Technologies
Ministry of Finance
Absa

Q14 - Topics



#	Field		Choice Count
Unknown	Unknown	100.00%	5

Showing rows 1 - 1 of 1

End of Report