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EDUCATION AND TRAINING AS A SOCIAL SCIENCE: SOME EMPIRICAL EVIDENCE IN THE ROSEBANK BUSINESS PRECINCT OF AUCKLAND, NEW ZEALAND

ABSTRACT

Tertiary institutions should seek continuous feedback from industries to keep track of the needs of businesses to provide education and training. Academics should stay in touch with businesses by networking and consulting. Holland and De Cieri (2006) refer to theories of child learning (pedagogy) to inform their understanding of andragogy, the study of adult learning. Adult learners would be continuous learners and would move in and out of formal education according to individual needs or life circumstances, job requirements or career development. In designing programmes and up-grading curricula, these are important factors to bear in mind so that programmes “cater” for these learners as well.

This study was financed by Auckland City Council focusing on Auckland’s Rosebank Business Precinct (ARBP). The surrounding communities, particularly Māori, Pacific peoples and recent migrants, experience disparities in employment. Our research questions were:

Is there a skills match between the present-day workforce and actual business needs over the medium term?

What can these data tell us about Rosebank’s trajectory as a skilled business cluster and about its future workforce requirements?

What education and training will be necessary for these organisations to maintain their competitive advantage and profit margins?

The target population were the 500-600 businesses operating on Rosebank Road. A total of 529 businesses were identified. Interviews with 102 companies with a 36-question questionnaire were conducted. The sampling frame was owner-managers (senior, non-shareholding managers). Of the respondent firms that had 68.75% had vacancies for up to 3 months and 31.24% vacancies for 6 months.

This article highlights areas identified in the ARBP for developing programmes and curricula for tertiary institutions to provide employable students with the right knowledge, skills and attributes (KSAs) to grow existing ventures. A fine balance must be struck between human and organisational needs. In the analysis and discussion we point out what education or training is necessary for the ARBP to provide greater efficiencies and subsequent improvement to their profit levels by current and future employees entering the workforce; well “equipped” employees with knowledge and skills to add value in their organisations. Recommendations and future perspectives and conclusions form the last part of this article.
EDUCATION AND TRAINING AS A SOCIAL SCIENCE: SOME EMPIRICAL EVIDENCE IN THE ROSEBANK BUSINESS PRECINCT OF AUCKLAND, NEW ZEALAND

INTRODUCTION

Tertiary institutions should seek continuous feedback from industries and advisory committees. By doing it in this way they could keep track of the needs of businesses to provide education and training for those businesses for the present and the future needs. Academics can play a huge role in this and they should stay in touch with businesses by networking and consulting. Holland and De Cieri (2006) refer to theories of child learning (pedagogy) to inform their understanding of andragogy, the art and science of teaching adults in tertiary institutions. Adult learners would be continuous learners and would move in and out of formal education according to individual needs or life circumstances, job requirements or career development. In designing programmes and up-grading curricula at the tertiary institutions, these are important factors to bear in mind so that programmes “cater” for these learners as well. Training needs identified in this study can also be done by tertiary institutions in various areas such as management, communication, leadership, human resource management, and so forth.

This paper highlights areas identified in the survey done in the Auckland Rosebank Business Precinct (ARBP) for developing programmes and curricula for tertiary institutions to provide employable students and training for current employees to ensure they have the right knowledge, skills and attitudes (KSAs) to grow existing ventures. Furthermore training needs were identified that is necessary for the current workforce to maintain their competitive advantage and their profit margins. A fine balance must be struck between human and organisational needs. In the analysis and discussion we point out what education or training is necessary for the ARBP to provide greater efficiencies and subsequent improvement to their profit levels by current and future employees entering the workforce; to have well “equipped” employees with knowledge and skills to add value in their organisations. The use of technology to improve the way the students
receive their tertiary education and current employees get training, both on a performance level through new or amended curricula and the introduction of new training programmes for the businesses in the ARBP were identified and discussed. Recommendations for education and training, and future perspectives to sustain their profitability are towards the end of the paper with the conclusions as the last section.

BACKGROUND

This study focuses on Auckland’s Rosebank Business Precinct, a natural peninsula which since the 1950’s has been utilised for heavy industry, especially at the north end. Currently, Rosebank has direct access to the North-Western Motorway and is more accessible to employees from other areas. A large labour pool of skilled and unskilled workers is available in the two surrounding Territorial Authorities, Western Auckland City and Waitakere City.

In terms of educational achievement and business composition, Rosebank more resembles Waitakere City (186,447 residents) than Auckland City (404,658 residents) because Waitakere is hosting the ARBP. Most businesses are family-owned small and medium enterprises (SMEs) who, like the buildings they inhabit, are increasingly suffering from degrees of obsolescence. Rosebank’s commercial interests are promoted through the Rosebank Business Association (RBA). As a whole, RBA is committed to increasing the level of training, education and skills development, essential elements for economic growth and densification of physical and knowledge-based assets.

The ARBP’s employment catchment area includes those suburbs in west Auckland and Waitakere City that lie within a five kilometre commuting radius bounded on the east by Western Springs, on the south by Green Bay, and on the west by Henderson. Some of the surrounding communities, particularly Māori, Pacific peoples and some recent migrant groups, experience disparities in education and employment. Inequality appears to becoming more concentrated geographically, with areas of high deprivation in west Auckland.
LITERATURE REVIEW

Foreign students

Biggs (1996) refers, more than a decade ago already, to international students’ experiences in Western countries, such as New Zealand’s educational institutions, culture, businesses’ structures and the influence of their family background. This has a direct effect on the industries in New Zealand where these international students work after their studies. Contrarily to this Onishi (2006) found in his study that most Japanese manufacturing companies are high performers and enjoy worldwide competitiveness due to well trained senior managers because their tertiary education and training systems were contemporary.

The New Zealand Ministry of Education has identified many other potential benefits, including greater diversity of programmes; exposure to different cultures and perspectives; enhanced facilities and teaching; and a wider international network to make it easier for international students to fit into the New Zealand educational system (McKinlay, 2002). What papers or programmes are these foreign or international students studying? Will they stay in New Zealand after they have completed their studies? If they do stay in New Zealand, were they prepared by the tertiary institution that they attended, to an acceptable standard to enter the New Zealand workforce to add value to organisations?

Ishaya (2006) explains that employees need to be skilled and well trained in their job, with systems in place so that they can work effectively and efficiently to add value to their organisations. We are of the opinion that the basis for this should be done in tertiary institutions, but the organisations can also have their own in-house training programmes. They could also make use of the tertiary institutions close to them only if these institutions know what the training needs are; programmes such as the Industry Based Learning programme at Unitec New Zealand places students in businesses for a semester. It is therefore important that their learning experience at tertiary institutions in New
Zealand be relevant to local business’ needs (ARBP) and yet satisfy the students and current employees rather than be a frustrating and incomprehensible process.

**Adult learning**

Delahaye (2005) postulates that there are at least four levels of recognising adult learning: Firstly, as the workforce ages, business will come to rely more on skills, knowledge and attributes (KSAs) of the mature age workers. Compounding this situation, secondly, there will be the need for all workers to continually up-grade KSAs. The third level is learning enriches their culture, promote intellectual life and helps people achieve their potential as valuable workers and citizens. The fourth and last level is that adult learning enables New Zealand organisations to maintain its competitive advantage in an increasingly world economy.

There is also a similar view from Du Plessis and Paine (2007) supporting Delahaye (2005) that meaningful workplace learning occurs rarely and may occur by chance. It can only be meaningful if the curriculum is correct in that it provides the right material required. The supervisor or trainer should have the skills and knowledge to facilitate learning and create the time to invest in the management and implementation of a learning culture. This means that it is the role of the human resource department to either facilitates the learning in the workplace or develops the supervisor to become a facilitator or trainer.

Stone (2008) is very cautious in saying that the human resource manager must first do the human resource needs for the organisation; then identify who of the current employees are in line for a promotion, who needs training to fill projected vacancies and only then the training programmes and the developing thereof can be decided on. International students as well as immigrants appear to have more problems in dealing with the new environment and tertiary programmes they enrol in than their local peers. Research generally indicates that international students suffer more psychological and social distress than domestic students (Ward, 2001). Further problems were also identified by in New Zealand, that include language barriers, financial concerns, performance anxiety, depression, loneliness, homesickness,
relationship problems, non-assertiveness, individualism and bicultural conflicts, stereotyping, prejudice, discrimination and paranoia. With this dramatic increase of international students in tertiary institutions in New Zealand, the challenge is to be able to adopt innovative teaching strategies that meet the legitimate needs and expectations of this group to satisfy the needs of the ARBP.

Curricula development

The curriculum itself is an area of interest, as what the students of today are taught impacts on business in later years when they have power to make decisions. In 2000, Thussu, and more recently, Ahlawat and Ahlawat (2006) discuss the need for increased knowledge of employment practices around the world especially with the increasingly globalised marketplace in which organisations operate. Langbert (2005) and Sincoff and Owen (2004) point out the need for an expanded curriculum both at the undergraduate- and postgraduate (Masters) programmes to ensure that all possible fields in business and other disciplines are covered. Van Fleet and Peterson (2005) propose greater recognition for teaching abilities and its value in the academic world in order to effectively develop the students’ knowledge, skills, attributes (KSAs) and competencies in the future.

In conjunction with the ARBP the lecturers of tertiary institutions, in developing of the curricula, should keep two areas in mind; the preparing and writing of assignments and the second is the development of discussion skills whether in teams or in class context. These two issues can be some of the hurdles in their learning process amongst many other hurdles or barriers (Du Plessis, Bhat, Williams (2007). The authors are of the opinion that strategies which should mainly be included in the curricula are the “soft skills” also known as “transferable skills” such as writing skills (report writing); discussion skills (communicating in meetings); problem solving skills (use of policies and procedures); observation skills (to act pro-actively); interacting skills (to work in teams or in a team environment); negotiation skills (to bargain for good prices or to communicate with trade unions); training skills (for induction and training of new employees); HR skills (to do the basic functions of human resources such as recruiting,
performance appraisals etc) and last but not least skills to be aware of legislation (when to get professional help).

**Education and Training**

Härtel, Fujimoto, Strybosch and Fitzpatrick (2007) make it clear that human resource management (HRM) and organisational strategy, structure, and culture are intertwined and changes in the one is likely to have repercussions for one or more of the others. Therefore education and training in businesses should also put the emphasis on organisational behaviour, organisational structure, organisational culture and strategic HRM. It is of the utmost importance that these issues are also lectured and the employees trained how to cope with it in their work environment. It is a definite requirement of businesses and should be in the curricula and programmes of both the current employees and the tertiary students.

Du Plessis (2007) is of the opinion that theory and programme development needs to build up a knowledge base for the future from which organisations can draw knowledgeable employees with the necessary skills. This can only be done if the academics are aware of the requirements in the ARBP businesses and the global markets. The higher the quality and availability of education and training in the future the greater the chances for employees to prove themselves as successful in their jobs or careers and adding value to the organisation. Managers and business owners in the ARBP need a knowledge base in the future from which to draw; our research has shown specific areas of importance that managers and academics believe must be included in the training programmes and curricula taught at tertiary institutions. How can employers and managers in the ARBP prepare themselves to have a competitive and high performing workforce in the future?

**Technology**

Changing technology is making an impact on the way organisations structure their work patterns. With the rising cost of fuel (NZ Herald Staff, 2008), pollution, along with traffic congestion and public transport issues, employers maybe forced to consider how and where their employees work. With the correct training and education, telecommuting
can be an option for people who are home bound or have familial responsibilities limiting their travelling and working hours. It also allows for people who live in geographically isolated areas to work and travel to the office in off peak traffic. This technology issue should also be covered in the training and educational programmes. This is a definitive option for the ARBP to explore.

OBJECTIVES OF THE STUDY

This study was financed by Auckland City Council focussing on Auckland’s Rosebank Business Precinct (ARBP). The surrounding communities, particularly Māori, Pacific peoples and recent migrants, experience disparities in employment. Our research questions were:

- Is there a skills match between the present-day workforce and actual business needs over the medium term?
- What can these data tell us about ARBP’s trajectory as a skilled business cluster and about its future workforce requirements?
- What education and training will be necessary for these organisations to maintain their competitive advantage and profit margins?

The present research examines the gaps between what the ARBP businesses actually want and what the workforce presently provides. We should uncover strategies and policies that local economic development organisations might use to overcome these gaps. Beyond this, we examine the potential for cluster development in the ARBP.

METHODOLOGY

The target population were the 500-600 businesses operating on Rosebank Road. These are the physical locations listed on: (1) the Roll of Rate Paying Businesses of Rosebank Business Association; (2) *apnfinda* intelligence data on businesses located on Rosebank Road; (3) Membership Directory of the Rosebank Business Association; and (4) Information collected by researchers in the field. These directories did not necessarily
correspond with one another. When we combined and de-duplicated the data, we arrived at 529 businesses in the Rosebank population of businesses. We conducted face-to-face interviews with 102 companies within that population. We used a 36-question questionnaire and employed random stratified cluster sampling. We divided the population into “Industry” and “Firm Size” groupings to establish desired representative proportions based on Statistics New Zealand (2006).

We selected a random sample from the members of each grouping. The grouping was treated as the sampling unit and analysis was done on a population of groupings. If after polling we did not reach the required level of representation in a particular grouping, then we went back to that grouping for more respondents. The sampling frame was owner-managers (and sometimes senior, non-shareholding managers) of firms within the Rosebank Business Precinct. This analysis is of firms, not individuals. We are ethically bound to confidentiality and anonymity by Unitec New Zealand’s Research Ethics Committee (UREC registration number 2008.797).

ANALYSIS OF THE RESULTS

In Table 1, below, it can be seen what the qualifications are of the employees in the neighbouring regions and cities of the ARBP

<table>
<thead>
<tr>
<th></th>
<th>Waitakere City</th>
<th>Auckland City</th>
<th>Auckland Region</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td>% No qualifications</td>
<td>22.3%</td>
<td>14.1%</td>
<td>18.9%</td>
<td>23.2%</td>
</tr>
<tr>
<td>% School qualifications only</td>
<td>35.2%</td>
<td>33.0%</td>
<td>34.6%</td>
<td>32.5%</td>
</tr>
<tr>
<td>% Post-school qualified</td>
<td>21.7%</td>
<td>19.2%</td>
<td>21.1%</td>
<td>22.4%</td>
</tr>
<tr>
<td>% Bachelor Degree and Higher</td>
<td>13.7%</td>
<td>27.4%</td>
<td>18.5%</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

Department of Labour Key Information Tool (KIT), January 2008.
**Firm size**

Smaller firms outnumbered larger firms (Figure 1 below). Seventy-eight percent had less than twenty employees. Actually, Rosebank has more large firms than the national or Auckland average, and so due consideration must be given to their needs as well. The one hundred firms in this sample were employing 1714 full-time employees. Respondents expected a decline of 1.8% in job numbers over the next year but a 1% increase by 2011, bringing the total decline in employee numbers to just less than 1% within three years. In other words, within the bounds of confidence, Rosebank owner/managers are predicting a steady rate of employment. However, it is important to note that a quarter of respondents were not able to predict three years into the future.

![Figure 1: Firm size of respondents](image)

**Education and training programme needs**

When asked to describe the top education and training needs that they had over the next three years, respondents could choose more than one category and most respondents chose several categories (Figure 2 below). The top needs of ARBP businesses were:

1. Management/ strategy/ operations/ sales & marketing
2. Applied technology and trades.

3. Computing & information technology, followed by

4. Accounting, finance and law.

Taken together, the Business Disciplines (Categories 1 & 4) had the greatest share of needs. A relatively new training need deserves special mention: “Developing a Green Business”. Twenty-two percent of respondents mentioned this as a need over the next 3 years. From our qualitative interviews, we believe this is a relatively “naïve” desire by firms because of what they have seen on the media. Rosebank is a relatively “dirty” precinct and there are some “noxious” companies located particularly in the Business 6 zone. This finding deserves more study, but it may be an opening to creating a more green-oriented precinct both in terms of practice but especially in terms of manufacturing and sales potential in the emerging “green economy”.

Figure 2: Where are your training needs over the next 3 years?

When asked whether their firm had training at all, 41% said they already undertook training whilst 57% had nothing. Of those who already have training, were asked to describe that training. This ranged from simple Occupational Health and Safety (OHS) training to more in-depth and expensive professional training. Responses included project
management, time management, sales, IT training, electrical trade, food and hygiene, fire safety, first aid, warehousing, logistics, security, inventory management, competitor intelligence, trade certification, business coaching, and traffic management.

When the 57% respondents were asked why they had no training, 46% of them said it was because they did all of their own training on-the-job (Figure 3 below).

**Figure 3: Why do you do no training?**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no training available</td>
<td>4.0%</td>
</tr>
<tr>
<td>The cost of training is prohibitive</td>
<td>9.0%</td>
</tr>
<tr>
<td>Training is not needed</td>
<td>14.0%</td>
</tr>
<tr>
<td>All training is done on the job</td>
<td>46.0%</td>
</tr>
</tbody>
</table>

**Sources of training**
The greatest source of training, according to the respondents, was on-the-job / shop floor training at 71% (Figure 3 below). Consultants / contractors were much less popular but still important at 33% with universities, polytechnics, and private educators at 27%. Government agencies and apprentices were relatively minor. The cost of training and availability of training were lesser concerns to the respondents.
Figure 3: What are your sources of training?

Universities, polytechnics, and private educators
Amongst the 28 respondents who used educational institutions, polytechnics were the most favoured, with 50% mentioning this option (Figure 4 below). Private educators were second at 29% with universities scoring only 14% and universities offshore at 7%.

Figure 4: Which training source do you use?
Training costs
We asked the companies how much money they could afford in a year for education, training and skills development. Nearly half (46.9%) said that they could not afford any training. The range for those who could afford training was wide, with values ranging from $200 to $40,000, with the meaning lying at about $5,000. When asked whether they saw a demand for firms like theirs to increase their training and education budgets, respondents were divided on this issue with just over half saying “yes” (51.9%) and the other half saying “no” (48.1%).

Despite their interest or disinterest in training, more than three quarters (76.8%) nonetheless said that their businesses were not constrained by their ability or inability to train employees. They had several reasons for this, such as: Nature of the work needs no training; Industry is already declining; Government policy encourages manufacturers to leave the country; The industry is too small; Staff are reluctant to learn; There is too much business coming in; Training is frustrating and time consuming; and equipment suppliers do the training.

RECOMMENDATIONS
This paper recommends, among others, a range of educational practices and training programmes, which will enable employers in the ARBP to be independent thinkers with a more practical and applied approach to learning and training. Further it advises on developing KSAs for their current employees as well as for adult learners, immigrants and foreign students doing “internship” such as the Industry Based Learning Programme (students who might then join a business in the ARBP for a period of time). These developed skills are valued by employers in the ARBP and it prepares them and their workforce better for their long term goals, low employment turn-over and profitability of their businesses.

The authors agree with the view of Dessler, Griffiths and Lloyd-Walker (2007) that learning is relatively permanent change in behaviour or cognition occurring as a result of
education, training and experience. It is recommended therefore that employers in the ARBP budget for education and training of their employees to ensure a loyal, knowledgeable and productive workforce.

Working conditions must be compared for the international students and immigrants with New Zealand, Europe, Asia, America and other Western countries to point out similarities and differences; some organisations learnt to their detriment that KSAs, policies and practices in one part of the world may not work in another. Aspects such as cultural values and beliefs can interfere with how business goals are achieved. The authors recommend that evidence obtained by this research project of the above named differences of different countries be used to teach students, international students and immigrants just how important it is to be knowledgeable in these issues to manage their businesses effectively, efficiently and maintaining their profit margins and competitive advantage as well.

A FUTURE PERSPECTIVE

Human Resource departments, and managers / owners and not outside contractors are best placed to know the education, training and development of career needs as well as the corporate culture and will therefore need to make final decisions in consultation with their own business managers and other interested parties within the ARBP organisations in the future. New ideas, technology and processes are going to open up new possibilities. But there is always going to be a need to find a balance between financial viability, the degree of control over a process and how to best manage the training and education needs of a business. It is the trials and tribulations in finding this balance and the successes and failures that will prove that training, education and career development deserve its place in the ARBP businesses and is not just an administrative cost to either be borne or reduced wherever possible to make the balance sheet look better.

Technology will play a larger role in the education and training field in the future as advances open up new avenues of application. As with all other aspects of technology
managers must ensure that all records are protected, used ethically and can be used effectively and efficiently to complete the required tasks.

To sum up the future perspective one can say that there is no one grand linking theory that signifies education and training and it is most likely that there will not be one at all, but education and training will be necessary in any business. Therefore the evolution of education and training will provide interesting developments, both theoretically and practically and the academics (tertiary institutions) should stay up to date with these changes with their programmes and curricula.

CONCLUSIONS

In the survey done in the Auckland Rosebank Business Precinct (ARBP) areas were identified for developing programmes and curricula for tertiary institutions to provide employable students and training for current employees to ensure they have the right knowledge, skills and attitudes (KSAs) to grow existing ventures. What the students and learners of today are taught impacts on business in later years when they have power to make decisions.

International students suffer more psychological and social distress than domestic students. Problems were also identified that include language barriers, financial concerns, performance anxiety, and others. Education and training in businesses should also put the emphasis on organisational behaviour, organisational structure, organisational culture and strategic human resource management. ARBP businesses need a knowledge base in the future from which to draw employees with the right KSAs.

This study examines the gaps between what ARBP businesses actually want and what the workforce presently provides. Training was done in 41% businesses, whilst 57% had no training at all. On-the-job / shop floor training was the greatest source of training at 71%. Polytechnics were the most favoured, with 50% while private educators were second at 29% with universities scoring only 14% and universities offshore at 7%.
It is apparent that many firms in ARBP lack basic managerial, computing and technology skills. Education and training can help organisational survival, improve employee performance, raise bottom lines, and be rewarding to people for having more skill. For large firms, general training such as certificates and degrees has been found to have a greater impact on productivity than specific training. Training is probably of greater relevance for younger companies than for established enterprises since they face more or less a common set of managerial challenges. At the ARBP these training challenges are primarily: computing infrastructure; business management; human resource development; market research; technologies and trade; and compliance with government regulations.

REFERENCES


