
An Exploratory Study of Group Adverse Impact in a Recruitment and Selection Strategy

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ABSTRACT

The Adverse Impact model was developed by the judicial system of the United States of America and the United Kingdom as a practical method to make legal judgements to determine whether designated groups are being unfairly discriminated against at any stage of an assessment process. The model has been used to assess various recruitment and selection instruments and measures. This study has been groundbreaking in that the application of the Adverse Impact model within the South African employment scenario is relatively new. An exploratory research design was used to analyse Adverse Impact at each stage of a recruitment and selection strategy. The model was applied to assess whether the instruments used, had an adverse impact on any of the designated groups.

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1 INTRODUCTION

Ensuring fairness should be the priority of any selection strategy, particularly in South Africa, where attempts are being made to rectify past practices that have had a discriminatory effect on certain sections of the population. The South African Employment Equity Act awards priority to the issue of group representivity in employment outcomes and ensures equal representation in all occupational categories and levels in the workplace (Mdladla, 2001). Affirmative action is a strategy for manoeuvring equal opportunities in the workplace. Although the purpose is to redress the disadvantages in employment experienced by certain groups, there are restrictions and limitations to enforcing this policy. An objective appraisal of the inherent abilities of specific job applicants is still a procedural requirement (Taylor, 1999).

Thus, because of the vital importance of fairness, the issue of fairness should be based on the end to end process of the entire recruitment and selection strategy, and not be isolated to one aspect of measurement. Any recruitment and selection decision is based on one or other selection model of decision-making. The

question that must be asked is whether the model itself is “fair”, as well as whether or not the instruments of evaluation and assessment employed, allow for equal treatment of all candidates. Ensuring fairness, therefore, should be the priority of any selection strategy.

An overview of the literature shows that there is a real and pressing need to explore the concept of adverse impact in more detail, particularly regarding the role it plays in determining the fairness of recruitment and selection strategies. Research on adverse impact has revealed that the ongoing search for objective measures, on which all applicant groups perform the same (thus resulting in no adverse impact and equality of employment results) has generally not been productive (Barrett, 1995; Barrett, 1996; Schmidt, Rodgers, Chan, Sheppard & Jennings, 1997; Wollack, 1994).

The Adverse Impact model or 4/5ths rule has been developed by the courts of the United States of America, and has also been adopted by enforcement agencies in the United Kingdom as a practical way of making legal judgements on whether designated groups are being unfairly discriminated against at any stage of an assessment process (Barrett, 1996). As a result of the search for objective measures, the Adverse Impact model has been used as a means for the assessment of various measures, and the research results have been used to improve selection strategies (Hattrup, Rock & Scalia, 1997; Ironside, Guion, & Ostrander, 1982; Maxwell, 1993; Mckinney & Collins, 1991; Raju & Edwards, 1984; Robertson & Kandola, 1982; Ryan & Ployhart, 1998; Sackett & Ellingson, 1997).

2 ADVERSE IMPACT

Muchinsky (1987: 132) defines Adverse Impact as:

The results of any selection method that causes a disproportionate percentage of people of a given category to be hired compared to another group. Adverse Impact exists if the selection ratio associated with a particular passing score on a test for one sub-group of job applicants is less than 4/5ths or 80 per cent of the selection ratio for the largest sub group of applicants. Adverse impact represents a difference in selection ratios for members of different groups and is generally the result of white-black mean differences on ability tests that are approximately one standard deviation in magnitude.

Since policy promoting an investigation of a company's selection program is evidence of Adverse Impact, companies hire people (white/black, male/female)

in proportions that comply with government standards (Taylor, 1999). Thus, Adverse Impact has become a useful tool to determine the differences in selection ratios such that these proportions may be complied with.

Adverse Impact is based on the logic of proportionality. Ratios of accepted/rejected applicants are compared across designated and non-designated groups with the assumption that these ratios should be similar across groups if unbiased decision-making is occurring (Muchinsky, 1987). The advantage of this approach is that it provides a simple decision rule for checking potential biased assessment outcomes in organisations. A disadvantage may be that the shortage of black skills in certain areas will necessitate the distortion of ratios, but the magnitude of the ratio differences provides valuable information for analysis.

The data needed for Adverse Impact analysis is simply the number of designated and non-designated applicants who are accepted and rejected at each hurdle in the assessment process. If it is established that a difference of less than 80 per cent exists in the acceptance ratios for different groups, then the organisation would be required to explain the circumstances and if necessary demonstrate the validity of any assessment hurdle which may be associated with the adverse impact finding. The 80 per cent figure is accepted by courts as a reasonable indicator of similarity in outcomes in comparing the selection ratios of groups, since in reality it is unreasonable to expect identical outcomes (Barrett, 1996). From the above it may be noted that one of the positive features of the Adverse Impact model is the simplicity of its application.

Equal Employment Opportunity asserts that all selection tests that result in adverse impact must be validated (Disability Information Partnership, 1999). If adverse impact is found to exist, the employer is obligated to validate the selection procedure to prove that the resulting personnel decisions were indeed based on a correct and valid method.

Psychological assessment instruments are, however, likely to provide useful and objective means of assessing candidates, as long as the test or instrument measures attributes required to achieve job success. Employers need to justify and defend their decision-making processes by relating criteria on which these decisions are based, to the requirements of the job (Saville & Holdsworth, 1997). This way they can identify exactly what the requirements of the job are to ensure selecting the most competent applicants and ensuring that all employees are trained to perform at their optimum potential.

New legislation has therefore forced organisations to look more closely at the requirements of the organisation and the people employed within the

organisation. Research on Adverse Impact indicates that it is evident that there is the potential for this technique at any stage of a selection process (Muchinsky, Kriek & Schreuder, 1998: 195-210).

3 RESEARCH METHODOLOGY

This research took place in a Telecommunications Call Centre environment. There were sixteen vacancies in the department. The Call Centre selection strategy consisted of a validated battery of instruments and measurements.

The validity and effectiveness of a selection procedure, to a large degree, depends on how the organisation uses the information. The success or failure of the selection system depends on effective construction of the process for gathering predictor information. Applicants are rarely selected using only one selection procedure.

The Telecommunications Call Centre recruitment strategy consisted of a combination of measuring instruments and selection "obstacles". Using multiple procedures can provide more complete information and allows the selection process to be adjusted in response to particular situations (Milkovich & Boudreau, 1994).

The multiple hurdle approach was adopted for the Telecommunications Call Centre recruitment process. In this approach, each predictor operates independently. Applicants must pass the first hurdle to proceed to the next, and failure in a particular hurdle resulted in the applicant's rejection from the process. Applicants needed to comply with the minimum qualifications in their Curricula Vitae to proceed to the psychological testing stage, and needed to qualify on the ability tests to proceed to the role-play exercise. Applicants who demonstrated required competencies and potential in the role-play progressed to the interview stage.

3.1 Aims

The aims of this study are:

- To identify whether Adverse Impact occurs in the Call Centre selection strategy.
- To ensure fairness in future selection outcomes.
- To deliver recommendations to the Management team regarding the strengths and limitations of the research.

3.2 Research design

An exploratory research design was employed in this study. This research method was chosen as an appropriate way of gathering the data in order to meet the aims of the study since insufficient published research has been conducted in the area of Adverse Impact in the South African context.

3.3 Sample

The population under investigation includes all the candidates that applied for the position of Service Representative, CFH (Customer Fault Handler) in the Call Centre, Central Region. The population consisted of 150 candidates. The majority of the candidates (105) were internal applicants (N=150). Forty-five of the applicants were from outside the company, and were introduced into the sample via Placement Agencies.

Due to the fact that all candidates who applied for the positions in the Call Centre were included in the research study, no particular sampling method was used. The requirement for inclusion in the sample was Grade 12, with Mathematics and/or Science, irrespective of age, culture or gender.

The original sample consisted of 150 applicants. A shortlisting exercise was initiated and job relevant criteria were assessed based on information presented in the curricula vitae. This process resulted in a compressed shortlist of 25 candidates.

3.4 Measuring instruments

The following evaluation instruments were applied in the recruitment and selection strategy: (i) job analysis; (ii) pre-screening exercise; (iii) ability tests; (iv) role-play; (v) interview; (vi) job-compatibility questionnaire and (vii) performance evaluation.

Each of the seven instruments measures certain job-related competencies. The Adverse Impact model was used as the foundation of the study and the 4/5ths formula was applied at the testing, interview and appointment stages of the selection process to determine the extent to which Adverse Impact was evident. The job analysis formed the basis of the entire selection strategy as critical competencies were classified at this point. The pre-screening and ability testing comprised stage 1 of the Adverse Impact analysis. The role-play was administered but due to internal complications, there was insufficient information for analysis. The interview represented the second stage of analysis. The appointment phase was analysed in stage 3. The Job

Compatibility Interview and Performance Evaluation aspects provided additional information pertaining to person-environment congruence. These aspects were not exposed to an Adverse Impact analysis.

4 RESULTS

Table 1 reveals the results of the Adverse Impact analysis at stages of the recruitment and selection strategy. Adverse Impact analysis has been conducted for population as well as for gender groups.

Table 1 Adverse Impact analysis

| Designated groups | No. of qualified applicants (meet min. req.ments) A | Selected to undergo testing | Above cut-off on learning potential test B percentage of A |
|--------------------------------|--|---|---|
| All Black | 23 | 21 | 12 $12/21 \times 100 = 57$ |
| White | 2 | 2 | 2 $2/2 \times 100 = 100\%$ |
| Adverse Impact analysis | | | 57 / 100 = 57% Adverse Impact Black |
| Female | 5 | 4 | 3 $3/4 \times 100 = 75\%$ |
| Male | 20 | 19 | 11 $11/19 \times 100 = 57\%$ |
| Adverse Impact analysis | | | 57/75 $\times 100 = 76\%$ Adverse Impact Males |
| Total | 25 | | |
| Designated groups | Selected for an interview | Above cut-off in the interview C percentage of B | Employed D percentage of A |
| All Black | 23 | 11 $11/23 \times 100 = 47\%$ | 14 $14/23 \times 100 = 60\%$ |
| White | 2 | 2 $2/2 \times 100 = 100\%$ | 2 $2/2 \times 100 = 100\%$ |
| Adverse Impact analysis | | 47 / 100 = 47% Adverse Impact Black | 60 / 100 = 60% Adverse Impact Black |
| Female | 5 | 3 $3/5 \times 100 = 60\%$ | 3 $3/5 \times 100 = 60\%$ |
| Male | 20 | 10 $10/20 \times 100 = 50\%$ | 13 $13/20 \times 100 = 65\%$ |
| Adverse Impact analysis | | 50/60 $\times 100 = 83\%$ No Adverse Impact | 60/65 $\times 100 = 92\%$ No Adverse Impact |
| Total | 25 | | |

The first stage of the impact analysis was the testing stage. The All Black population group reflected Adverse Impact at this stage. The All Black group consisted of African, Coloured and Indian population groups. The male gender group also reflected Adverse Impact at this stage.

The interview phase was the next level of analysis. Once again the All Black group has reflected Adverse Impact. Neither of the gender groups reflected Adverse Impact at this stage.

The next stage of analysis involved the appointment step. The analysis in this division was based on the number of candidates appointed in relation to the number of candidates who met the minimum criteria (n=25). 16 candidates were appointed. Based on the four fifth's formula it is interesting to see that the all Black group was the only group that evidenced Adverse Impact in the final stage. Once again, there was no Adverse Impact indicated in terms of gender comparisons.

It is imperative to remember that the Adverse Impact at each stage be calculated in isolation from the next stage, and dealt with accordingly. One cannot assume that if there was no evidence of Adverse Impact in the final and probably critical stage of the selection process that the complete strategy is free from Adverse Impact.

Prior to 1982, Adverse Impact was defined using the bottom-line principle, which meant that there was no cause for action if the overall impact rate fell above the 80 per cent line. However the United States Supreme Court in 1982 overturned this rule making it possible to bring an action against any part of a process that had Adverse Impact (Barrett, 1996). It is commonsensical to determine the level of impact at each assessment obstacle so that the fairness of each hurdle can be verified. The validity of each assessment hurdle needs to be confirmed.

5 RECOMMENDATIONS AND CONCLUSIONS

Over the longer term a spin-off from this study will signify the use of the Adverse Impact model as a method of ensuring fairness in recruitment and selection. Proposals will be made to encourage all HR practitioners to consistently benchmark outcomes of selection strategies against this model.

Based on the extent of the Adverse Impact sustained in this selection strategy, recommendations will be made to the management team regarding the fairness of this procedure. A summary of the findings of the study will be presented to

the management team with the recommendation of reviewing the current selection process and assessment instruments. A further suggestion will be made to conduct a more recent job analysis to confirm whether the job requirements have remained the same and whether the psychometric tests are measuring the relevant attributes. If the job analysis reveals changes in the requirements of the job, alternative ability tests and competencies will need to be considered.

In order to prevent, or at least minimise the extent of Adverse Impact, companies need to embark on an ongoing search for objective measures on which all applicants perform the same, thus resulting in no Adverse Impact and equality of employment results. Companies need to continually examine the relevance of the selection instruments they use before including them in the selection procedure, and if required, redesign and revalidate the strategy. Companies should also assess the level of the psychometric test to ensure that the tests being administered are aligned with the appropriate norm group. If it has been determined that the level of the test is too high they should explore the possibility of using an alternative version of the same test.

South African legislation today encourages companies, and specifically human resources practitioners, to keep record of every stage of a selection process, should the necessity to defend an employment decision emerge.

Affirmative action and employment equity policies have their function and are meant to speed up the racial re-engineering of the workplace. Nevertheless, managers should not ruthlessly dispense with objective assessment of the inherent abilities of applicants to the job (Taylor, 1999).

Ignoring the presence of Adverse Impact could result in inequalities in selection as well as erroneous selection and rejection. If talented people are consistently and systematically disqualified from employment opportunities, then these excluded people represent wasted human resources.

The legal implication of unfair and discriminatory recruitment and selection is formidable. Personnel practices that have a differentiated approach to certain groups are illegal, unless these differences can be justified as necessary for the safe and efficient operation of the business, and are work-related.

If group Adverse Impact is disregarded, the elimination of unlawful employment practices will be compromised. No matter how well intended the elimination of objective employment standards are in the pursuit of equal employment results, neglecting to attend to the development of alternative solutions, may well contribute to a productivity decline.

Although the concept of Adverse Impact and the use of 4/5th's rule are not built into employment equity legislation in South Africa, it is likely to be a very important tool in South African organisations. There is an increasing demand for institutions to be accountable and to demonstrate that the assessment instruments and procedures that they use, are not only psychometrically valid and reliable, but also fair, free from bias, and thus being in line with the concept of Adverse Impact.

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