META-ANALYSIS AND REVIEW OF THE HUMAN FACTORS AND ERGONOMICS LEGISLATION GOVERNING HUMAN FACTORS AND ERGONOMICS: COMPARISON BETWEEN TWO DIFFERENT COUNTRIES, SOUTH AFRICA AND AUSTRALIA

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Introduction: In 2019, the South African Department of Employment and Labour (DoEL) promulgated and gazetted the Ergonomics regulations under Section 43 of the Occupational Health and Safety Act 1993 (Act No. 85 of 1993) making it the first country to regulate Ergonomics in Africa. The main objectives of the regulations is to govern Human Factors and Ergonomics practises in the different workplaces across the country. This, a step in the right direction and a way to ensure that Ergonomics is enforced in both the formal and the informal sector.

Ergonomics is not a new concept in South Africa and although the promulgation of the regulations was only effected in 2019, Ergonomics was previously referenced in other legislations. These includes the Construction Regulations (1993), the Mine Health and Safety Act (1996), the General Labour Regulations such as the Labour Relations Act (1995), Basic conditions of employment Act (1997), Employment Equity Act (1998) and the Skills Development Act (1998). Although previously Ergonomics was not specifically referenced in the South African Labour Laws, it is cited in sections of the Occupational Health and Safety (OHSA) (Act 85 of 1993). As is, in South Africa Ergonomics is still in infancy stage and thus the scope of the subject is not yet adequately understood across the different industries.

The following paper therefore aims to compare the South African regulation with the regulations in Australia to gauge where the regulations stands when compared to legislation in countries like Australia where Ergonomics and Human Factors has been a part of the workforce for decades. Furthermore, the study aims at drawing from the

Australian regulation and identify aspects that can be adapted to enhance the implementation of these regulations in South Africa taking into account that Australia promulgated its regulation in 1925 and therefore implementation of their Ergonomics legislation is at an advanced stage.

Methodology: The following study is a Meta-analysis and review study that evaluates two different regulations (South African and Australia) to draw on comparison with the aim of identifying areas within the South African regulation where important aspects could be identified for appraisal and thus improvement.

Results: The South African Ergonomics regulation are made up of 13 different sections. The first section gives a brief definition of the different terminology used in the regulation. The second section (scope of application) and the third section (Information, instruction and training) details whom the regulations is applicable to as well as the training structure of the employees in the workplace. The regulations apply to all employers, self-employed persons, manufacturers as well as the suppliers of tools and equipment that is used in the workplace. It is expected according to Section 3, that employees are trained on the different sources of Ergonomic risk and how to identify them in the workplace as well as the control measure put in place to mitigate these risks. Additionally, the risk to the health of employees of the different risks factors should be included in the training and the employees must be made aware of the requirements of a medical surveillance plan in place to monitor health effects associated with exposure. Also included in the section is the procedure for reporting Ergonomics risks as well as the intervals after which training should be undertaken. Section 4 and section 5 describes the duties of persons who may be at risk of exposure to ergonomic risks and duties of designers, manufacturers, importers and suppliers of equipment and tools. Of outmost importance is the Ergonomics risk which is discussed in Section 6 of the regulations and covers the process of the risk assessment, the content (Analysis and evaluation of risk, hazard identification, homogenous exposure groups and health effect) as well as the review process. Section 7,8 and 9 describes how risk control, medical surveillance and Maintenance of controls should be managed. The regulation also prescribes how records pertaining to Ergonomics should be kept (Section 10) and the Ergonomics health and safety

technical committee (Section 11), offences and penalties (Section 12) as well as the Short title and commencement of the regulation (Section 13).

Conclusion: The main dissimilarity between the two countries' legislation is that unlike the Australian legislation that are divided according to the different states and industries, the South African regulations governs workplaces across the country and no specific distinction to the different industries is made. Although no scientific evidence of the advantages of splitting the legislations across different state could be drawn, the significance of splitting the legislation according to industries is that Ergonomics risk assessment differs based on the risk factors and therefore dividing the legislation according to the different industries assists in tailor-making legislation to suit each type of industry thus addressing Ergonomics risks specific to each industry.