# DESIGN IN TECHNOLOGY IN THE INFORMAL SECTOR PRODUCTION: A CASE STUDY OF FURNITURE AND METAL FABRICATED PRODUCTS AND SERVICES IN WESTERN KENYA.

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## ABSTRACT

Kenyans from all walks of life recognize the immense contribution of the informal (Jua Kali) sector towards the production of goods and services. The sector is essential in economic growth and development. Design process is crucial in any production of goods and services. Scholars have carried out extensive studies in the Jua Kali sector, but design in technology has been omitted in their studies. The need to investigate the production process in the Jua Kali sector in relation to formal design process was conceived and carried out in this study. The purpose of the present study was to examine the production process in the Jua Kali sector in relation to universally accepted design process and the effects of the formal education, professional training and working period of the producers on the use of design process. The theoretical framework covered the enabling environment for the informal sector producers. The study attempted to seek solutions to five research questions and tested four research hypotheses.

The informal sector, vocational and technical education in Kenya and design were reviewed in the related literature. The research employed both descriptive and inferential statistics and a case study was adopted to examine furniture and metal fabricated products in western Kenya covering Eldoret, Kitale and Bungoma Jua Kali associations. The sample of 170 respondents was obtained from a population of 320 respondents from the three JK associations using random sampling technique. Upon data collection, 112 respondents responded to the questionnaires and this was taken as the sample for data analysis. Since this population was greater than 30, it was found fit for the data analysis as supported by Tabachnick and Linda (1989). The study used one dependent variable, which was the performance of producers on the use of formal

design process and there were four independent variables. The independent variables were informal production process, formal education, professional training and working period. The data was collected and results were presented in tabular and graphical forms. Z-test and one-way ANOVA were used in data analysis with the level of significance ($\propto = 0.05$) found suitable for social sciences (Koul, 1993).

The major findings indicated that use of the design process in the Jua Kali production was lacking and the level of formal education, professional training and working period affects the use of design process in the Jua Kali production. The producers with low level of formal education, professional training and working period did not appreciate the use of design process and vice versa. Since the majority of producers were found to posses low level of formal education and professional training, the use of design process in the Jua Kali sector was found lacking. The observations indicated that there was use of low technology in the Jua Kali production hence low quality products and services.

The study provided the recommendations on the informal sector, design in school curriculum and further studies related to the present study. The study recommended for frequent in-servicing of the Jua Kali producers on design. This will enhance the use of formal design process in their production. The supply of electricity and good sheds will enhance use of high level of technology. Design and technology should be an integral part of the school curriculum. The beneficiaries of the present study are the producers in the Jua Kali sector and school curriculum developers among others.