Labour Productivity in the Building Industry – Studies of Uganda

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Abstract
Research has been pointing out that productivity in the building industry is stagnant and in some cases declining. Poor productivity of craftsmen is one of the causes of cost and time overruns on building projects. Productivity of labour is particularly important especially in developing countries where most of the building work is still carried out on manual basis. The objective of this research was to find the current state of efficiency of building craftsmen, the factors that affect labour productivity, the enablers and barriers to change at firm and industry level, and the level of industrialisation and how it affects labour productivity.

There are a number of philosophies that have been proposed to improve the performance of the building industry. Most of them have been borrowed from the manufacturing industry. Literature indicates however, that improvement basing on these tools has been anecdotal, and most of them have not gained success especially in developing countries because of poor dissemination and ingrained inadequacies in the industries.

In order to find the state of efficiency of craftsmen, activity sampling was used. Activity sampling based on the major activities on building craftsmen shows that only about 20 percent of the available time for making the buildings to grow. Craftsmen use about 40 percent of available time on productive activities. It further shows that building craftsmen spend about 33 percent of the time on non-value adding activities.

A questionnaire survey was used on project managers in the building industry in order to find the factors affecting labour productivity. Ranking of their responses taking into account effect on cost, time and quality shows that the ten most significant problems affecting labour productivity in Uganda are incompetent supervisors; lack of skills from the workers; rework; lack of tools/equipment; poor construction methods; poor communication; inaccurate drawings; stoppages because of work being rejected by consultants; insecurity; tools/equipment breakdown; and harsh weather conditions. Although lack of materials is ranked highest with regard to average rating on loss of time, it was not ranked among the top ten using the importance index that takes into account cost as well as quality of the work.

A survey using a questionnaire was made on chief executives of building contractors with the aim of identifying the main enablers and barriers to innovation that have effect on productivity. It was found out that having an educated technically qualified workforce and having experienced diverse workforce are regarded the two greatest enablers to
innovation in building firms that will drive forward productivity. The effect of design on construction and the level of tax regimes are regarded as the two greatest barriers to innovation in building firms. The level of training in science, engineering and technical education; and the level of research and development at the national level are looked at as the two greatest enablers to innovation in building that will drive forward productivity. The size of the domestic market and the level of security are the two worst barriers to innovation that lead to low productivity in the building industry in Uganda.

Case studies were used to assess the level of industrialisation in Uganda, the effect on productivity and other metrics that were proposed. Results indicate that the cost of labour is of the order of 30 to 40 percent of project costs. The metrics confirm that labour is a significant factor in the cost of building and more efforts are required to industrialise the industry.

It is believed that these findings, which are believed to be generally true for many building industries in developing countries, should be addressed by policy makers and researchers in order to increase labour productivity. There is need for further research to improve productivity in the building industry.