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Tertiary Education and Industrial Development in Ghana



In brief

- There is a mismatch between the skills possessed by graduates and those needed by firms in Ghana. This has important implications for industrial growth in Ghana.
- This study investigates the elements of mismatch and the factors underpinning these. Hence, we aim to contribute to improving the relevance of tertiary education in the provision of job-relevant skills and its alignment with the needs of the labour market.
- There are two critical mismatches:
 - Insufficiency of certain skills (analytical skills, leadership, innovation, problem-solving, technical skills, ability to take responsibility for their own actions).
 - The lack of adequate employment opportunities.
- The skills mismatch can be classified into a number of subcomponents: inadequate
 tertiary education provisions vis-a-vis provisions in industrial policy; institutional
 ineffectiveness; poor stakeholder integration; lack of a national development plan;
 inadequate personnel and infrastructure at tertiary institutions; the shift in focus of
 some tertiary institutions; industrial challenges; and inadequate funding.
- There are three broad effects of this mismatch:
 - Labour market effect: there is growing unemployment for young graduates.
 - Productivity effect: firms retrain new graduates due to mismatches, and thus
 result in a high cost of production, low industrial productivity and profitability.
 - Development effect: this takes the form of low industrial growth, a high dependency rate and an increase in social vices in the economy.
- Nine policy recommendations are suggested to tackle the skills mismatch outlined above.





Background

Accelerated industrial growth is one of the priorities of Ghana in order to boost the welfare of her citizenry as well as economic development. To achieve these goals, several factors including building competent human resource base are *sine qua non*. This, therefore, requires that tertiary education provides graduates with job-relevant skills to meet the demands of firms and the economy as a whole. Many state agencies, ministries and the private sector in Ghana have expressed great interests on the need to make tertiary institutions more relevant to the holistic development of the country. For instance, in the Medium-Term National Development Policy Framework: Ghana Shared Growth and Development Agenda (GSGDA), 2010-13 (2010), the enhancement of tertiary education for socio- economic development has been prioritised.

"This study seeks to unravel the elements of mismatch between tertiary education and the needs of industry in Ghana and the factors underpinning the mismatches"

Similarly, the National Council for Tertiary Education (NCTE) has expressed an interest in enhancing the relevance of tertiary education in the country for development. In its strategic plan for 2010-14 the NCTE further seeks to formulate broad policy framework on applied research in priority areas for national development in tertiary education institutions. Also, the Association of Ghana Industries (AGI) clamours for suitably qualified graduates to increase industrial productivity. Additionally, in the 2010 Ghana Industrial Policy, the Ministry of Trade and Industry (MOTI) did acknowledge the problem of inadequate skills-relevant human resource base confronting all the sectors of industrial development in Ghana.

However, even though the mismatch phenomenon between the skills possessed by graduates and those needed by firms has been widely acknowledged and reported in Ghana, comprehensive and empirical assessments exploring its nature and extent as well as the underpinning factors of the mismatch are scarce. This study therefore seeks to unravel the elements of mismatch between tertiary education and the needs of industry in Ghana and the factors underpinning the mismatches. By unearthing the disconnect between skills of graduates and the needs of industry, the study will contribute to improving the relevance of tertiary education, both in terms of its provision of job-relevant skills and its alignment with the needs of the labour market. This broad aim will be achieved by ascertaining answers to the following questions:

- To what extent does tertiary education meet the requirements of job-skills required in industry?
- What can be done for tertiary education programmes, in both public and private institutions, to be shifted towards the demands of industry?
- Under what conditions will the ideal structures of tertiary education function in Ghana?
- How have other countries aligned tertiary education to meet the demands of a transforming economy in times of accelerated industrial growth?

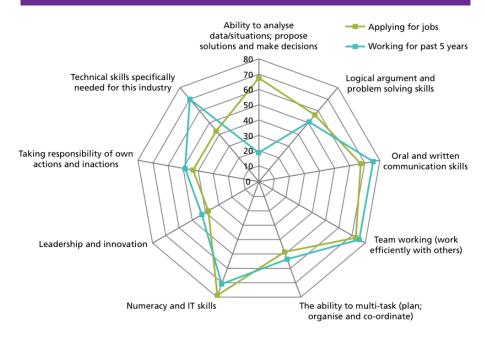
Using an eclectic mix of methodological approaches – quantitative and qualitative methods, the study was conducted in tertiary institutions and firms within the Greater Accra Region, Association of Ghana Industries (AGI), government agencies

(National Accreditation Board – NAB, National Council for Tertiary Education – NCTE, National Board for Professional and Technical Examination – NABPTEX) mandated to govern tertiary education delivery in Ghana and among graduates of tertiary institutions.

Analysis of Mismatches between Job-Skills Requirements by Firms vis-à-vis the Skills of Tertiary Graduates

"Broadly, emerging from the analysis of the data for this paper are two critical mismatches" Broadly, emerging from the analysis of the data for this paper are two critical mismatches between the needs of firms in terms of skills and the ones possessed by graduates from tertiary institutions in Ghana: insufficiency of certain skills (the ability of graduates to analyse data/situations and propose solutions, leadership and innovation, technical skills, and graduates' ability to take responsibility of own actions and inactions) and the lack of adequate employment opportunities, which are to be created by firms in the labour market (Figure 1).

Figure 1: Percent of Firms that are either Satisfied or Very Satisfied with Specific Skills of Tertiary Graduates



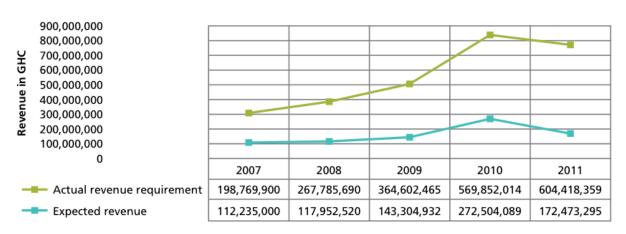
Source: Fieldwork, 2012

Foundations of Mismatch between Tertiary Education's Output and Skills Needed by Industry in Ghana

The analysis revealed that the foundations of skills mismatch between what graduates possess and what is needed by firms can be broadly classified into eight (8) subcomponents:

- Inadequate tertiary education provisions vis-à-vis provisions in Ghana's industrial policy
- Ineffectiveness of institutions charged with oversight responsibility for ensuring quality in tertiary education
- Poor integration of relevant stakeholders
- Absence of a national development plan linked to tertiary education/lack of a comprehensive tertiary education policy in Ghana
- Inadequate personnel and infrastructure at tertiary institutions
- The shift in focus of some tertiary institutions
- Industrial challenges
- Inadequate funding (See Figure 2)

Figure 2: Funding of Tertiary Education in Ghana (the gap between the actual and the expected)



Source: NCTE, 2011

Effect of the Mismatch between Tertiary Education and Industry Needs

The mismatches between tertiary education and the needs of firms have three major effects on the Ghanaian economy: labour market, productivity, and development effect (See Figure 3).

Labour market effect

"The phenomenon has become precarious to the extent that there is country called "Unemployed Graduates Association of Ghana"."

The labour market effect is manifested in growing unemployment for young graduates. There are a significant number of graduates that are unemployed after completing various tertiary institutions in the country. This is partly because firms consider them as not possessing job-relevant skills and partly due to the low capacity of firms to absorb them. The phenomenon has become precarious to the currently an extent that there is currently an association in the country called "Unemployed association in the Graduates Association of Ghana".

Productivity effect

The mismatch between skills possessed by graduates and what is needed by industries compel them to spend considerable amount of resources in retraining newly recruited graduates. This results in high cost of production as well as low

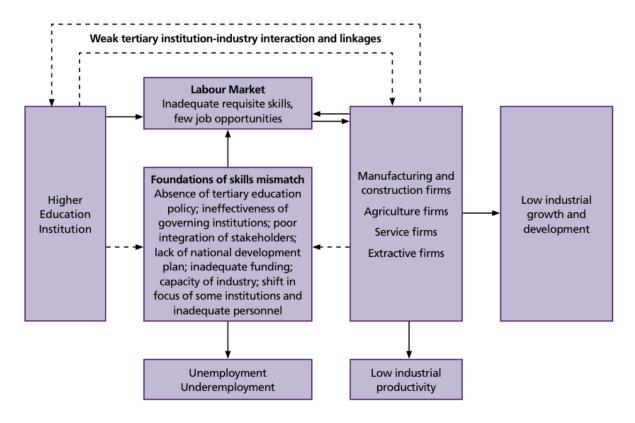
industrial productivity and profitability.

"High unemployment... is leading to high dependency rate and increase in social vices in the economy"

Development effect

The development effect of the skills mismatch is manifested in the form of low industrial growth and contribution to the gross domestic product of the country. The high unemployment resulting from graduates' skills mismatch and capacity of industry to absorb graduates from tertiary institutions is leading to high dependency rate and increase in social vices in the economy.

Figure 3: Summary Framework of the Foundations and Effect of Tertiary Education-Industry Skills Mismatch on Industrial Development in Ghana



Source: Authors' own construct, 2012

Conclusion and Policy Recommendations

Based on the findings of the study, the following recommendations are put forward to ensure that tertiary education and firms reinforce one other for industrial development in Ghana:

"Tertiary education de governing bodies should be fully empowered to discharge their mandates without interference."

- Develop a long-term national development plan and a comprehensive tertiary education policy situated within the long-term developmental objectives of the country.
- Tertiary education governing bodies should be fully empowered to discharge their mandates without interference.
- Enhance both vertical and horizontal integrations among stakeholders in the tertiary education sector.
- Increase funding for tertiary education from the public and private sectors.
- Create a greater enabling environment for the private sector and industry to thrive.
- Mainstream entrepreneurship course into all departments' programmes.
- Promulgate a legal instrument to compel industries to open up for research.
- Create an integrated platform for dialogue on national provisions for tertiary education and the needs of the Ghanaian economy.
- Establish benchmarks and measurable indicators to track the effects of tertiary education on industrial development in Ghana.

References

Government of Ghana (National Development Planning Commission). (2010). Medium-Term National Development Policy Framework: Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013. Vol. 1, Accra, December, 2010.

Ministry of Trade and Industry (2010). Ghana Industrial Policy. Accra.

National Council for Tertiary education. (2010). Strategic Plan 2010 – 2014. Accra.

National Council for Tertiary Education. (2011). Funding tertiary Education in Ghana. A presentation at the national stakeholders' dialogue on funding tertiary education in Ghana. Accra.

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