Future Directions of Construction Education to Meet the Challenges and Opportunities

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Introduction

- Loss of talent to other industries has led to a shortage of construction professionals over the last decade
- To succeed in global marketplace, construction professionals must sharpen their competitive edge
- Nurturing our next generation of construction professionals is an important agenda
- What is the future direction of construction education to meet the challenges and opportunities ahead?

Objectives

- To examine if students are willing to work elsewhere
- To identify the factors affecting their decisions
- To unveil the barriers they may face when working abroad
- To find out the competitive edge required
- To determine if the current tertiary education system can address the changing conditions in construction
- To identify the changes needed in education to prepare students from a globalized working environment
Methodology

- Questionnaire surveys: 380+ replies from undergraduate students in construction-related programs in Hong Kong, viz. architecture, civil engineering, building services engineering, surveying, and town planning.

- Semi-structure interviews: 10 program leaders from 5 universities in Hong Kong.

Questions for Students

- Interest and willingness to work outside of Hong Kong

- Factors that affect their decisions

- Barriers they may face

- Perception of competitive edge

- Overall development and training received from undergraduate studies
Questions for Program Leaders

- Whether it is part of their major educational objective to equip students with skills to work in overseas
- Any courses specifically designed to improve students’ knowledge on overseas practices
- Availability of language courses to help improve language proficiency of undergraduate students who wish to work in overseas
- Consideration related to how much to emphasize on the emerging markets

Preferred Location of Work

![Bar chart showing preferred locations of work.](chart.png)
Factors to be Considered

Barriers to Working Overseas
Competitive Advantages

Attainment of UG Programs
Opinions of Program Leaders

- Only about half of the program leaders interviewed confirmed preparing students to work in overseas is their “major” educational objective.
- Training and knowledge on overseas construction laws and regulations are lacking.
- Many universities offer industrial-related projects, site visits, internships and exchange programs but many are not compulsory courses.
- Courses geared specifically towards emerging markets like Mainland China, India and elsewhere are also rare.

Challenges

- Previous construction hotspots such as UAE and Macau have cooled down drastically, forcing the foreign construction industry workforce to migrate to other markets.
- In the face of this changing economic environment, existing and upcoming professionals in the construction industry must be adequately trained to adapt to different markets and cater to regional demands in a more internationalized market.
Opportunities

- Construction industry is vital to an economy and often used as a catalyst to revive a struggling economy.

- Example: Chinese government’s RMB 4 trillion (USD $580 billion) stimulus plan with major emphasis on construction and infrastructure development.

- Package will focus on 10 major areas, amongst them include low-income housing, rural infrastructure, water, electricity, transportation and environmental improvement projects.

Skill Sets Required

- Project management skills, innovative technology, oversea construction laws and regulations, cultural of emerging countries, and language training will become vital for construction professionals.

- Further adjustments to education curricula are necessary in response to this need.
Conclusion

- Offering additional skills for working in foreign, emerging markets can help add a degree of flexibility, enabling construction industry professionals to have more opportunities.

- Added flexibility can reduce chances of construction industry professionals leaving the field for other professions, thus ensuring a more constant and stable supply of human resources.

- These benefits will lead to a healthier and stronger construction industry.

Thank You