

SKILL MISMATCH OF EDUCATED YOUTH IN THE CAMBODIAN RICE EXPORTATION SECTOR

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ABSTRACT

This paper examines university educated youth involvement within the milled rice export sector of the rice value chain in Cambodia. Using the Cambodian Federation of Employers and Business Association's 2008 policy brief on the state of youth employment within Cambodia as its basis, this research looks more specifically into what role the Cambodian rice exporters can play in the sustainable employment of future working generations – specifically university students and graduates. Although the average Cambodian youth is not a university graduate, a particular cause for concern is the rising number of unemployed youth in Cambodia and a disparity between education and labour skills. The scholarly literature and empirical findings on the subject have been surprisingly deficient.

The emphasis of this study is on original research, which was conducted entirely through semi-structured and structured interviews which occurred predominantly in Phnom Penh. To achieve the goals of the research, interviews were undertaken with members of the various stakeholders: The milled rice exporters, Cambodian university students prospective to this industry and a Cambodian government ministry. The ensuing discussion and results from the interviews builds towards the argument that there is a mismatch between the Government's targets, Cambodian youth's expectations and academic institutions hopes. It is established that there must be greater cooperation between all stakeholders, especially between the educational facilities and private sector. The author therefore concludes that there is a need for a platform to be created whereby the private sector can have greater footholds in educational facilities and can inform the educators of important skills demanded by the labour market.

Keywords: *Youth, Education, Skills, Training, Employment, Rice Export.*

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LIST OF ACRONYMS

- CAMFEBA** Cambodian Federation of Employers and Business Associations
- CDRI** Cambodian Development Resource Institute
- CREA** Cambodian Rice Exporter Association
- CSES** Cambodia Socio-Economic Survey
- FSN** Food Security Network
- GDA** General Directorate of Agriculture
- ILO** International Labour Organisation
- ITC** Institute of Technology Cambodia
- KYA** Khmer Youth Association
- MAFF** Ministry of Agriculture, Forestry and Fisheries
- MoEYS** Ministry of Education, Youth and Sport
- MTVETM** Ministry of Technical Vocational Education and Training Management
- NGO** Non-Governmental Organisation
- NSDP** National Strategic Development Plan
- OECD** Organisation for Economic Co-operation and Development
- RUA** Royal University of Agriculture
- SPSS** Statistical Package for the Social Sciences
- TVET** Technical and Vocational Education and Training

OPERATIONALISATION OF TERMS

Youth: This thesis used the ILO/UN definition of youth as individuals aged from 15 to 25 years. The government in Cambodia refers to youth as 15 – 30, any uses of this age group are identified throughout the thesis.

Unskilled Worker: A worker is a labourer or non-technical staff. Their work is mostly manual and repetitive. Rice export sector examples include cleaners, lifters and vehicle loaders.

Skilled / Specialised Worker: A specialised worker's job requires a level of skill or understanding that is slightly more sophisticated than manual work. The work is still mostly repetitive but requires some form of education or training to master skills. Rice sector examples include machinery workers, quality testers and maintenance staff.

Professional staff / Management: Professional staff and management jobs are more independent, have more control and responsibility in the company and perform a variety of tasks. They generally require a higher level of education and/or experience to be capable in their roles. Rice sector examples include company managers, supervisors, accountants, IT staff and administrative staff.



Rice fields in Siem Reap. Source: A.Nguyen, 2003.

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1. INTRODUCTION

This thesis presents a detailed study of the export trade section of the rice value chain in Cambodia. The country is currently in a unique position having a large number of young people entering the labour market (CAMFEBA, 2008; Focus ASEAN, 2012; UN, 2009) and yet, literature on youth development in Cambodia is in short supply and broad in scope. The research aims to expand the available literature and establish, within the tight context of Cambodia's rice exportation companies, what the role of the private sector is in developing employment opportunities for future generations of university educated Cambodians, specifically focusing on the extent to which rice exporting corporations are taking responsibility in providing opportunities that enable employment of these students and examining what could reasonably be implemented to further improve their skills and employability in the industry.

1.1 Main research question

What role can Cambodian rice exporting companies play in skill development and employment of upcoming generations of educated Cambodians?

1.2 Sub-Research Questions:

- 1) What is the position of Cambodian rice exporting firms and youth involvement within them?
- 2) What motivations do rice exporting companies have for providing opportunities to the younger generations?
- 3) What initiatives have they taken to solve problems regarding young educated Cambodian's employability?
- 4) How effective are any initiatives that have been implemented by the rice exporting companies?
- 5) What initiatives would students prospective to this industry, educational facilities and the government like to see implemented?
- 6) What policy recommendations can be made to increase involvement and develop human capital in this industry?

To find the answers to these questions the research draws on available literature and primary research interviews. The interviews were conducted with:

- Rice exporting companies
- Youth engaged in university studies related to the agro-industry sector
- University lecturers in Cambodia
- Members of the Cambodian government
- A youth-development focused non-government organisation (NGO) worker.

Before arriving in Cambodia research into the organisation of rice exportation needed to be undertaken in order to understand how many companies are involved and if there is potential for young people to participate in the sector. Beyond this, a firm understanding of what, if any, motivations these companies may have for supporting and helping the Cambodian youth: If there are no mutual benefits or motivations for the companies this research will be of no significance.

Once an understanding of the issues and questions to be asked had been uncovered, research could be undertaken within Cambodia. The average Cambodian youth is not a university graduate but the decision was taken to hone in on this group because it became apparent during early discussions that these companies have little interest in concerning themselves with indifferent youth. Educational facilities with 'food-science' and 'agro-industry' courses contain young people likely to have knowledge of and an aspiration to enter the rice exporting industry and therefore, it was decided that this is the group that could most effectively be assisted by the industry.

By examining what initiatives have already been taken, their effectiveness and further initiatives the rice exporting companies and Cambodian students interviewed deem helpful, or would like to see implemented, then specific, realistic, policy recommendations can be made. In order to assist this sector and so that future generations of educated Cambodians can continue to develop sustainably these policy recommendations will be made available to the relevant people.

This dissertation is divided into 5 sections. The next chapter critically examines existing literature on youth development within Cambodia, the recent expansion and future development of the country's rice export sector and a summary of a previously authored study (CAMFEBA, 2008) that has relevance to this one. Chapter 3 provides specifics on the research design, location, methodology and limitations of this study. Chapter 4 contains the findings of the interviews, results and discussion. Chapter 5 concludes and evaluates this study.



Rice fields in Battambang. Source: Author, 2014

2. LITERATURE REVIEW & THEORETICAL FRAMEWORK

The research question asks what role rice exporters can play in the development of young, educated Cambodian's employment opportunities. For this research to be of significance it is necessary to understand the issues at hand; the expansion of the rice export sector, students' skill development and students' unemployment. The four main stakeholders involved are the students and rice exporters themselves, the government and the educational facilities. The government and educational facilities both have direct impacts upon the growth of students' skill development and job opportunities (CAMFEBA, 2008; UN 2009; ILO, 2007; OECD, 2013). In order to understand these issues, a literature review was completed prior to conducting the study, outlining the current position of Cambodian youth and why educated youth skill development and employment are significant issues. This is followed by a discussion regarding the recent explosion of growth within the rice export sector and why it is an important industry for the future of Cambodia.

As youth issues increase in national importance, research must be conducted into finding solutions to these issues. Thus far, limited research has been conducted, especially in sectors such as rice exportation. When the future importance of the rice exportation sector is considered there is a scenario in which an expanding youth population can be a great opportunity rather than a cause for concern. If the workforce is effectively trained and directed into a growing industry there is scope to help develop and increase productivity within this sector and the sector in turn can diminish youth unemployment issues as "opportunities for profitable development in the agribusiness value chain...offer considerable openings for improving the livelihood of youth" (ILO, 2007: 63). This thesis therefore aims to find out what role the Cambodian rice exportation sector can play in the sustainable employment of Cambodia's educated and skilled youth.

2.1.1 Cambodian youth in context

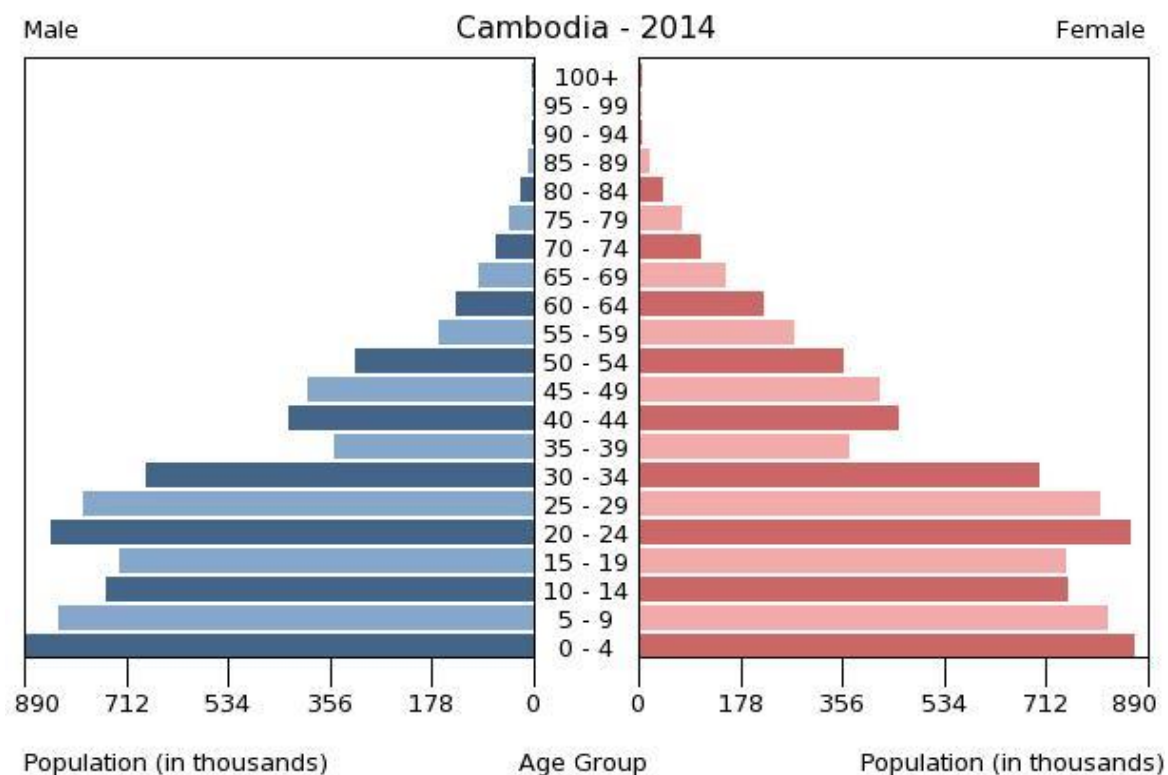


Figure 2.1 Cambodia's population pyramid 2014; Source CIA World Factbook

The topic of youth is one of pertinence in Cambodia. Currently approximately 52% of Cambodians are under the age of 25 (CIA World Factbook, 2014); this is due largely to the regime of Pol Pot. The Cambodian genocide that occurred between 1975 and 1979 resulted in the deaths of just under 2 million people in excess of the normal mortality rate, of which most were adults (Locard, 2005). Following the conclusion of the genocide there was a baby-boom throughout the 1980's and 1990's (United Nations, 2009); this has resulted in a very skewed population pyramid for the country (figure 2.1). Much of the baby-boom of the 1980's and 1990's have now matured into adulthood (figure 2.1). There is, what appears to be, another baby boom occurring as more youth's enter the 20-30 year old range, the median age of first childbirth in Cambodia is 22.8 years old (CIA Factbook, 2010) and the mean age of all childbirth is 28.8 (UN, 2008). The age range of 20-30 is therefore where the greatest number of Cambodian's have children. Double baby-boom results in a phenomenon referred to as 'population momentum' (MOP, 2012: 6). The issues of youth employment within Cambodia will therefore be relevant for the foreseeable future.

Moreover, the problems of a large, young population are being exacerbated by Cambodia's relatively low level of educational attainment and high hidden unemployment levels as will be discussed in more detail.

2.1.2 Education in Cambodia

Since the Cambodian genocide killed a large percentage of educated Cambodians, Cambodia has had a low level of education due to the lack of both good human and physical resources in teaching (UN, 2009). The constitution of Cambodia guarantees the universal right to free basic quality education, however this fact may not be well known across Cambodia, as a 2007 study by the Cambodian NGO Education Partnership (NEP) found that one quarter of parents were unaware that their children have a right to free education. Due to poverty, children in Cambodia are forced to give up the chance of receiving education to work and supplement their family's income (ILO, 2001). The opportunity cost of sending children to school can be very high making it almost impossible for the children of poor families to receive education (ILO, 2001). Based on the data from International Labour Organization (2001), close to 20% of children ages 5–9 were employed as child labour. The figures then rose to 47% for children between age 10-14 and 34% for ages 15–17 (ILO, 2001).

The issue of education in Cambodia is exacerbated as many teachers in Cambodia, especially those in the more remote areas, have not completed their secondary education and according to UNESCO (2006), merely 1.6% of Cambodia's GDP (Gross Domestic Product) is spent on education. This amount is often insufficient to cover the basic operational costs of the schools, meaning the teachers often have to pay for their own teaching equipment.

Level	Phnom Penh
Primary	46.2
Lower Secondary	22.6
High school	15.6
Technical/Vocational	2.4
Under Graduate/ Graduate	9.9
Other	1.7
Total	100.0

Figure 2.2 Young people aged 5-24 currently attending school, by level and region (%). Source: CSES, 2004.

Figure 2.2 above shows that in 2004 9.9% of Cambodians were students or graduates and that 2.4% of the population were in technical or vocational schools. Although the Cambodian education system still faces many challenges it has progressed substantially over recent years: There have been significant improvements, especially in terms of primary net enrolment gains (CAMFEBA, 2008), the introduction of program-based budgeting, and the development of a policy framework, which helps disadvantaged children to gain access to education (UN, 2009). The numbers in education (figure 2.2) have therefore improved since 2004 and this looks to continue for the foreseeable future, ensuring that this thesis is of relevance for a significant portion of the population.

2.1.3 Cambodia's Labour Market

"The single most important issue confronting youth in Cambodia today is employment" (UN, 2009: 3) as there are now more than 300,000 people entering the Cambodian labour market every year and this number is likely to increase to 400,000 in the near future (United Nations, 2009; Focus ASEAN, 2012). Currently the informal economic sector accounts for 90% of all employment and the formal sector only creates approximately 50,000 new jobs each year while the workforce increases by over 300,000 (TVET, 2008). It is therefore of great concern for the future of Cambodia that measures be taken to absorb these greater numbers into the job market. If jobs are not increasingly made, the country could face grave

issues with unemployment, issues which are already beginning to appear. Unemployment rates in developing countries are often low due to the prevalence of informal labour (ILO, 2007; 2010; UN 2009). In 2010 the ILO released a study on 'labour and social trends in Cambodia'; this argued that although Cambodia currently has a low unemployment rate, only 1.1% of adults aged 25-64 in 2008, it worryingly has a youth unemployment rate triple that at 3.3%. However, when measuring unemployment in Cambodia using a relaxed method of measuring youth unemployment the rate increases to 7.2% country wide and 20.1% in the capital city of Phnom Penh (ILO, 2007). Although "it is normal for youth rates to be relatively high since it takes time for new entrants to the labour force to find gainful employment" (ILO, 2007: 3) the rate at which the working population is expanding in relation to the labour market is cause for concern.

Youth unemployment issues are changing; urbanisation is rising rapidly in Cambodia as youth seek to differentiate themselves from previous generations and wish to move to the relative glamour of the capital city (MOP, 2012). The Cambodian 'Ministry of Planning' call it 'the draw of the big city lights' (MOP, 2012: 2). This is "alluring for individuals who seek better lives for themselves, but it can also assist their families back in rural areas who may receive remittances that can move them out of poverty" (MOP, 2012: 2). Correspondingly, the nation's urban areas have experienced rapid demographic growth, increasing at an average rate of 4.34 per cent annually from 2000 to 2010 (World Bank, 2012). In Phnom Penh it is predicted that the population will more than double between 2005 and 2025 to 2.91 million people (UN-Habitat, 2008: 167) as the population increases the number of educated youth will also see growth. Mass unskilled labour work is now an unattractive attribute for the country and according to the Cambodian Federation of Employers and Business Associations (CAMFEBA, 2008) more than 60% of Cambodian University students are graduating in either business or law and only 2% are in courses related to agriculture. With a lack of professional careers, skilled work is a desirable career path as the jobs pay well and have scope for advancement into higher paying occupations and professional careers from them (CAMFEBA, 2008). Vocational training programmes for youth have also been proven to be more cost effective when training is targeted and tailored to the needs of the local labour markets (ILO, 2007: 47). Trends in developing and transition countries have highlighted the considerable difficulties of integrating young people into 'decent work'

(O'Higgins, 2005) and CAMFEBA (2012), stated that qualifying with vocational skills tends to take less time and puts people into jobs at a much quicker rate than academic courses and "vocational training is most effective for higher earners than lower earners illustrating the complementarity of vocational and academic skills" (ILO, 2007:47).

2.1.4 Human Capital Development

'Human Capital' refers only to the characteristics of potential workers that will affect their performance in a particular job thus, it is assumed that the labour market is an equilibrium that distributes workers to jobs on the basis of their economic 'worth,' as measured by education, literacy, numeracy, skill, age, experience, specific training and past performance (Becker 1962). Breen, Hannan and O'leary (1995: 71) state that "educational qualifications act as a signal of the potential productivity of jobseekers which employers can use, so minimising their recruitment costs and allowing them to make as fine distinctions as are required in order to select among a possibly large field of job applicants in a very slack labour market". OECD (2005) observed that there are significant differences in unemployment rates for young people with low human capital and low skills and furthermore that they are more likely to be exposed to long-term unemployment, unstable, low quality jobs and social exclusion. However, a person's educational level is only the most immediate variable measuring 'human capital'; Carmeci and Mauro (2003) maintain young people lack the other two important components of human capital, namely generic and job-specific work experience. Carmeci and Mauro (2003) argue from both a theoretical and an empirical perspective that educated youngsters need to acquire firm-specific knowledge by working in order to enable their "schooling" human capital to become productive.

McCoy and Whelan (1996) state that oversupply in the labour market, particularly during and post-recession, mean that employers can pick and choose among large numbers of applicants, which leads to 'credential inflation', whereby vacancies tend to be filled by employees with higher levels of qualification than are necessary for the job. Industry specific education and qualifications could therefore be of more importance to differentiate potential candidates – especially in countries with rapid development like Cambodia where labour supply is high and unskilled labour wages are low (Focus ASEAN, 2012; ILO, 2007;

2009; 2010; CAMFEBA, 2008). Moreover, as a country develops and moves away from primary towards tertiary industries there is increasing importance for human capital development in order to attain economic development as the production processes become more complicated and technical rather than labour intensive (Lin and Chen, 2012; Gao *et al*, 2010). Lin and Chen (2012) suggest that in Shanghai “human capital and industrial structure adjustment have a stable and proportional relationship” but Gao *et al* (2010) revealed that in 3 other Chinese cities “the rising of human capital level has effectively promoted the adjustment and upgrade of industrial structure, whilst the adjustment of industrial structure is not the reason of the level of human capital raising”. Therefore, it can be surmised that human capital development is of key importance for the expansion of industry.

2.2.1 Rice exportation companies in context

Rice exportation companies’ facilities in Cambodia largely consist of the later, value added sections of the rice value chain. Predominantly the rice exporters will purchase paddy rice through contract farming; they will then mill, dry, grade, quality check, brand, market and then export the rice. These companies therefore control the majority of the value chain, thus jobs within these companies can vary greatly. These jobs can be categorised into three groups, unskilled workers, skilled workers and professional staff. Explanations of these terms can be found at the operationalisation of terms section of the thesis (page VI). This research focuses on skilled jobs because university students or graduates will be unlikely to look to attain unskilled work and will in most cases be too young or under qualified to undertake professional or management jobs at their age. Skilled jobs within the rice export sector are mainly within the milling part of the value chain. The objective of the rice milling system is to remove the husk and the bran layers from paddy rice to produce whole white rice kernels that are sufficiently milled, free of impurities and contain a minimum number of broken kernels. Examples of skilled jobs are therefore machinery operators, maintenance staff, food graders and quality testers.

2.2.2 National Strategic Development Plan

In 2009 the Cambodian government revealed its plans for its '2010 -2015 National Strategic Development Plan' (NSDP) outlining its goals to expand all parts of agricultural production, especially in rice. Their goal is for Cambodia to become one of the world's largest and highest quality rice exporters in the world, by exporting over 1 million tonnes of rice in 2015 (NSDP, 2009). At the time of this announcement rice in Cambodia was still primarily for domestic consumption. Rice had not capitalised on significant value addition and was still fixed in traditional farming methods. Rice, for decades, has been the most important agricultural product for the country and still occupies more than 80% of cultivated land (CSES 2004 and 2007), it is the country's main staple food and provides more than three quarters of daily energy intake for the average Cambodian (CAMFEBA, 2008), it is of such prominence that it is often referred to as Cambodia's 'white gold' (The Economist, 2013; OECD, 2013).

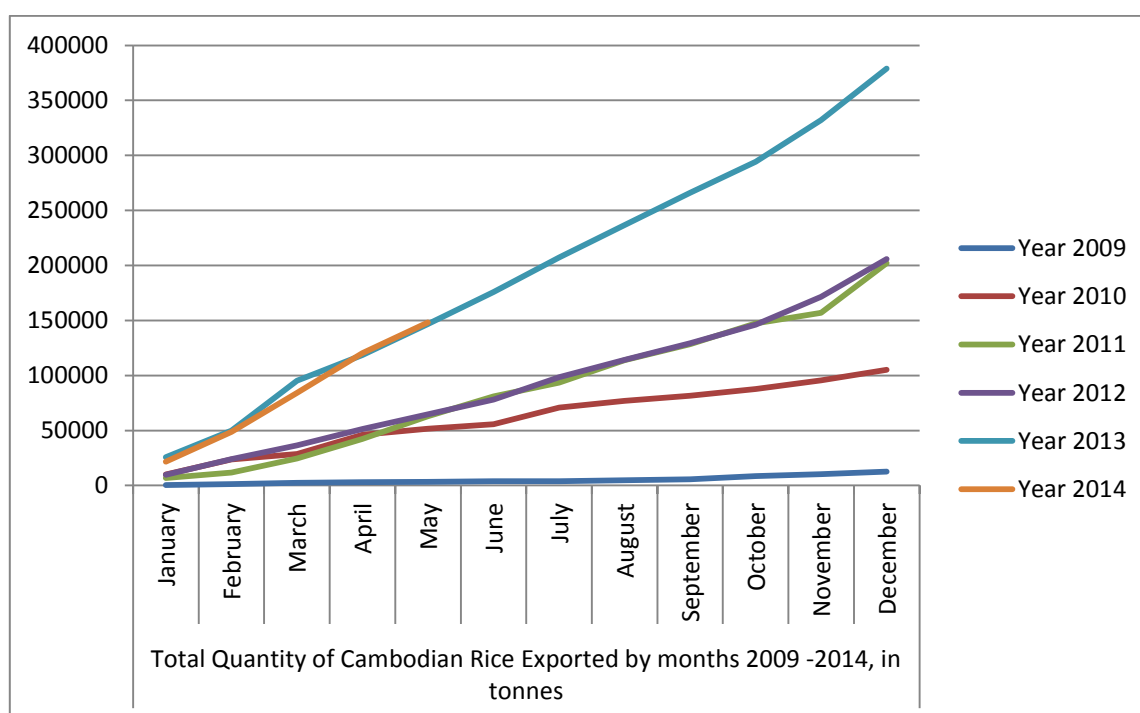


Figure 2.3 Total quantity of rice exported by months 2009 – 2014 in tonnes.

At the time of the NSDP announcement in 2009, Cambodian rice exportation was still in its infancy with no national statistics for export before 2009. In 2009, only 12,613 tonnes of milled rice was exported from Cambodia, however, at the end of 2013, 378,000 tonnes of

rice were exported (CREA, 2014). Figure 2.3 above shows how this sector has seen exponential growth in recent years. Although Cambodia's milled rice exportation is a relatively new industry, Cambodian paddy rice exportation has long existed. It is not uncommon for Cambodian farmers on the borders of Thailand and Vietnam to export unmilled (and no value added) paddy rice to these countries (FSN, 2010; The Economist, 2014). In April 2010 paddy rice sold for an average of 1100 Riel per kilogram (Riel is Cambodia's currency; approximately 4100 Riel to 1 dollar) across Phnom Penh markets, on the other hand milled rice sold for between 2100 and 2640 Riel per kilogram depending on quality (table 2.1). Therefore, "exporting unprocessed rice is a significant loss of value added for the economy" (FSN, 2010: 4). "Much of Cambodia's rice crop flows across the borders to Vietnam and Thailand as unprocessed paddy, and is then to sold on (sometimes labelled as those countries' own grain) or else sent back to be resold in Cambodia" (The Economist, 2014). Therefore, developing Cambodia's domestic milling capacities would reduce Cambodian imports and would increase value added exports.

Commodities Price Report in Phnom Penh Markets 01 April 2010		
Item	Unit	Average Market Price
		01.04.2010
Rice 1	Riel/Kg	2640
Rice 2	Riel/Kg	2100
Paddy	Riel/Kg	1100

Table 2.1 Rice prices per kilo in Cambodian Markets, April 2010. Source Food Security Network (FSN)

Approximately only 10% of foreign direct investment (FDI) in Cambodia is agricultural, and rice exports are still very much a Cambodian dominated industry unlike other sectors in Cambodia that are largely controlled by China, the US and other foreign investors (CDRI, 2012). Therefore, it could be argued that the benefits from growth in this sector are more likely to go to Cambodians, rather than being leaked to foreign investors and countries.

2.3 Bridging the Gap: Youth employment opportunities in Cambodia (CAMFEBA, 2008)

The research most similar to this thesis is the 2008 CAMFEBA study 'Bridging the gap: youth employment opportunities in Cambodia'. That study, much like this deals with the issue of youth skill development and employment within the Cambodian labour market.

The CAMFEBA study however, focuses on many industries throughout Cambodia and therefore lacks specific data and recommendations. The study concluded "this is the first time that such a representative sample of employers has been surveyed on the issue of youth skills and employment", that their study would "provide an excellent base for future studies". CAMFEBA therefore called for further, more industry specific research to be conducted. The study is now 6 years old and Cambodia is a fast changing country. In total the CAMFEBA study interviewed 220 companies across 12 different sectors, these sectors were defined broadly. At most, 8% of the respondents were from the rice export sector; however, it is completely possible that no milled rice exporters were interviewed as the breakdown is not specific and thus individual companies are unknown. As the rice export sector is arguably going to become one of the most important sectors in Cambodia, this thesis' goal is to fill the void in the available literature, on this key issue, therefore focuses on one specific industry, the Cambodian milled rice export.

'Bridging the Gap' (CAMFEBA, 2008) identified many opportunities for youth skill development and employment, furthermore, the study showed that there are a multitude of areas which must be developed further in order to reach a position in which youth have sustainable employment and opportunities for economic growth throughout Cambodia. Arguably, the most interesting areas of study were how the private sector could build youth's human capital. The study maintains that for Cambodia to provide its youth with employment opportunities in a variety of sectors, and locations, it is vital that youth have the right skills to tackle these issues; "improving the skills of young Cambodians will create employment, reduce poverty and improve the competitiveness of Cambodian businesses" (CAMFEBA, 2008).

The CAMFEBA study identified a general skills gap throughout all sectors of Cambodia and the main way in which the study seeks to tackle this issue was by focusing more specifically on the “micro-level challenge which is the mismatch between the skills that youth possess and the skills required by employers” (CAMFEBA, 2008: 18). ‘Bridging the Gap’s’ purpose was to serve as the input to the various stakeholders in developing their agenda in order to close the skills gap in the youth employment market. The study found out the views of the employers based on their experiences in hiring youth, in particular their views on youth skills, the challenges they face as employers of youth, their future recruitment plans and ways they felt they could reduce the skills gap.

Within youth skill and labour issues the stakeholders involved are widespread; from the employers (who hire the youth), universities and other educational facilities (who develop youth skills), government ministries (who develop laws, policies and targets impacting youth development) and the youth themselves.

The CAMFEBA (2008) study used an example of the telephone market to help grasp labour skills mismatch within the context of supply and demand.

According to the CAMFEBA (2008) the telephone market consists of:

- **Demand:** consumers phones
- **Supply:** companies that manufacture phones and companies that sell phones.

Therefore, for the telephone market to continue successfully, consumers must comprehend the specifications that their phones fulfil, moreover, the suppliers of phones must understand what the consumers need, and if these are matched the producers supply the right phones to the right consumers.

Using the same analogy within the context of the rice exportation sector of Cambodia, the youth labour market must meet the demands of the employers.

The youth labour market consists of:

- **Demand:** Rice exportation companies hiring youth.
- **Supply:** Educational facilities who train and develop youth skills and government ministries that produce policies and targets regarding youth.

CAMFEBA (2008: 18) maintains that “for the labour market to work efficiently employers must understand what skills the youth possess and educational providers must understand what skills employers are demanding”. Once understood this mismatch must be diminished through targeted human capital development i.e. through communication, education and training appropriate to the respective industry, in the case of this thesis rice milling and exportation.

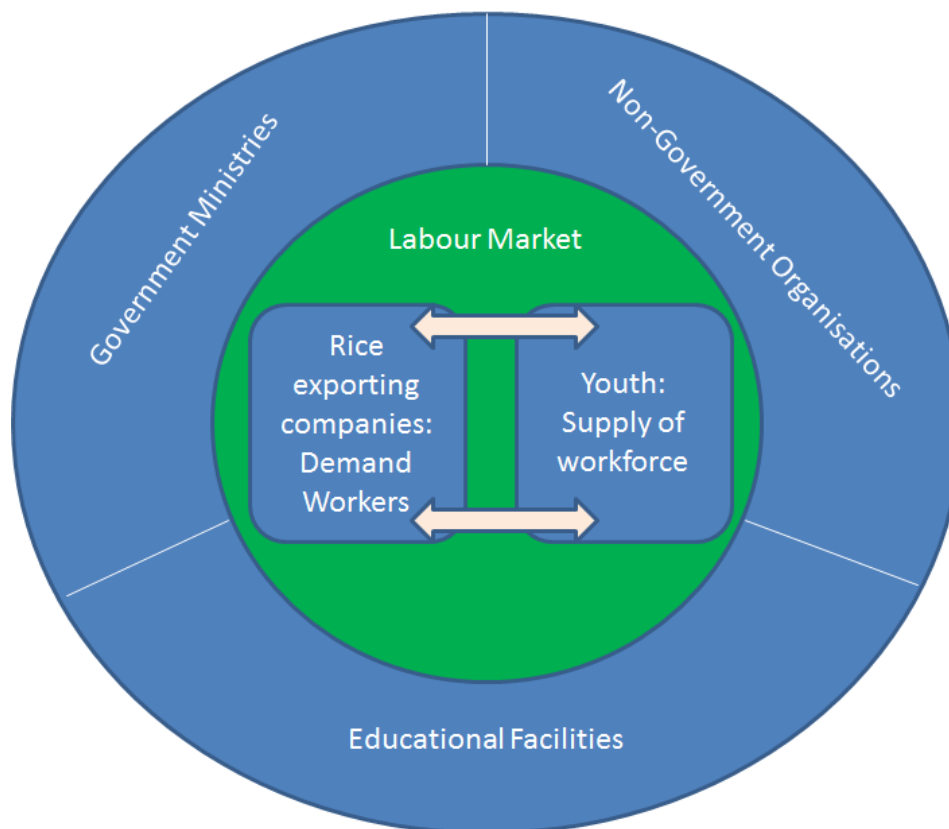


Figure 2.4 Theoretical framework showing interconnections between the different stakeholders involved in the supply of youth workers into Cambodian rice exportation companies.

Figure 2.4, illustrates how within the labour market there is supply and demand, the supply of youth workers and the demand of the exportation companies. Located on the fringes of the labour market are the 3 main stakeholders that shape and train the future working generations, through their education, policies and laws. This study intends to understand how youth skills and employment opportunities can be developed within the rice exportation sector.

‘Youth and Employment: Bridging the Gap’ (2008) therefore was an interesting starting point and draws many parallels to this thesis. Comparisons between their relevant findings and ones made in this paper will be referred to in Chapter 4.6’s discussions.



Figure 2.5. Quality control in rice production. Source: Golden Rice Cambodia.

3. RESEARCH METHODS AND DESIGN

3.1 Research Methods Introduction

This study involved two key activities:

1. Desk research
2. Structured and semi-structured interviews with:
 - a. Cambodian rice exportation companies
 - b. Cambodian youth (students of the 'Royal University of Agriculture')
 - c. University faculty Deans
 - d. Cambodian Government Ministries

In order to answer the research questions a combination of qualitative and quantitative methods were used so that the research is complete, accurate and triangulated. Before leaving the Netherlands for Cambodia, desk research was undertaken into the number of companies within the export sector, their relative sizes and export quantities. This information was all gathered through the 'Cambodian Rice Exports Association' website (CREA, 2014) and based on the total exports by all milled rice exporters in 2013. Research was also undertaken into youth skills and employment issues so that a good understanding of the issues at hand were known before undertaking any primary research.

Once in Cambodia, interviews were undertaken with different groups of stakeholders. The next chapters will justify the research methods undertaken, detailing specifics regarding how many interviews were conducted, why each portion of interviews was conducted and any limitations encountered during the research.

3.2 Research Design

Bruce L. Berg (2007:92) states that at least three main categories of interview structure can be identified (Babbie, 2001; Nieswiadomy, 2002; Merriam, 2001) namely, the standardised (formal or structured), the unstandardized interview (informal or non-directive) and the semi-standardised interview (semi-structured guided, or focused). "The major difference...is

their degree of rigidity with regard to presentational structure” (Berg, 2007:92). Qualitative and in-depth interviews, both structured, the interviewees were asked to respond to each predetermined question, offering them the same stimulus (Babbie, 2001) and semi-structured, involving a number of predetermined questions and topics but allowing the interviewer freedom to digress and to “probe far beyond the answers to...prepared standardised questions” (Berg, 2007:95) were employed for this thesis. The rationale for a structured interview was that the researcher could compare responses having a clear idea about the things he wanted to uncover during the interview. However, as the interviews progressed over time, a semi-standardised interview, where questions could be reordered, the wording of the questions more flexible, and the level of language adjusted, suited this investigative study and subjects.

The structure of the research was sequential in nature. It was necessary to understand the exporters’ initiatives, motivations and the extent to which youth are involved in the industry before continuing to contact youth for their perspectives. Without this background knowledge questions applicable to the youth focus could not be formed. Furthermore, the interviews with government ministries had to be subsequent to the interviews with the exporters and youth. The ministry interview was primarily used to understand the feasibility of the policy recommendations formed from the previous interviews.

During research a note book, to write key words and phrases, was carried and people were asked to allow voice recordings to be made, so that transcripts could be written later and coded. All interviews were conducted within good practice guidelines and respondents (outside of exporters and students) were asked if they could be named in the thesis. The interviews with exporters and with students were structured to ensure the questions were fair and produced data that could be categorised and analysed. A semi-structured interview approach was employed for the other stakeholders, this allowed for “much greater freedom to explore specific avenues of enquiry” (Kitchin and Tate, 2000: 214) whilst permitting some degree of structure. These interviews therefore had a general outline of questioning, however, were not as rigid as previous interviews, which allowed the interviewee to give extra details that may not have previously been considered.

Face to face interviews enabled the researcher to gather appropriate data according to the individual, with questions added, extended, or left out as necessary. Within each interview both qualitative and quantitative methods were used and thus survey like data could be collected. Focus groups were considered for use when conducting research with Cambodian youth as “researchers can observe session participants interacting and sharing specific attitudes and experiences, and they can explore these issues” (Berg, 2007:149). It was felt by the interviewer that young people being amongst a group of peers would likely increase their confidence over being one-on-one with a researcher. Ultimately focus groups were not feasible for this thesis’ research as an external translator would be required which would have a cost implication and in addition, using a translator creates feedback delays between the student and the researcher as information is fed through the translator. It was decided that this could lead to information being lost in both transit and translation. Eventually, only one-on-one interviews with English speakers were conducted. Although a limitation, its effect in many instances was minor. All youth interviewed were final year university students and the University lecturers and the Government Ministry all had comprehensible English. The exporters on the other hand were hit and miss; it is likely that many more exporters would have been willing to be interviewed had there been a Khmer speaker present.

3.3 Locational Framework

Although rice production takes place throughout Cambodia, different varieties of rice are located in different regions depending on the topography and climate there. These diverse strains of rice are of differing quality and therefore differing value as well. Due to this, some regions have much more rice production than others. The majority of rice farming is located rurally in areas spreading from the north-west diagonally through the country to the south-east. These areas generally follow the Mekong River as shown in the figure below.

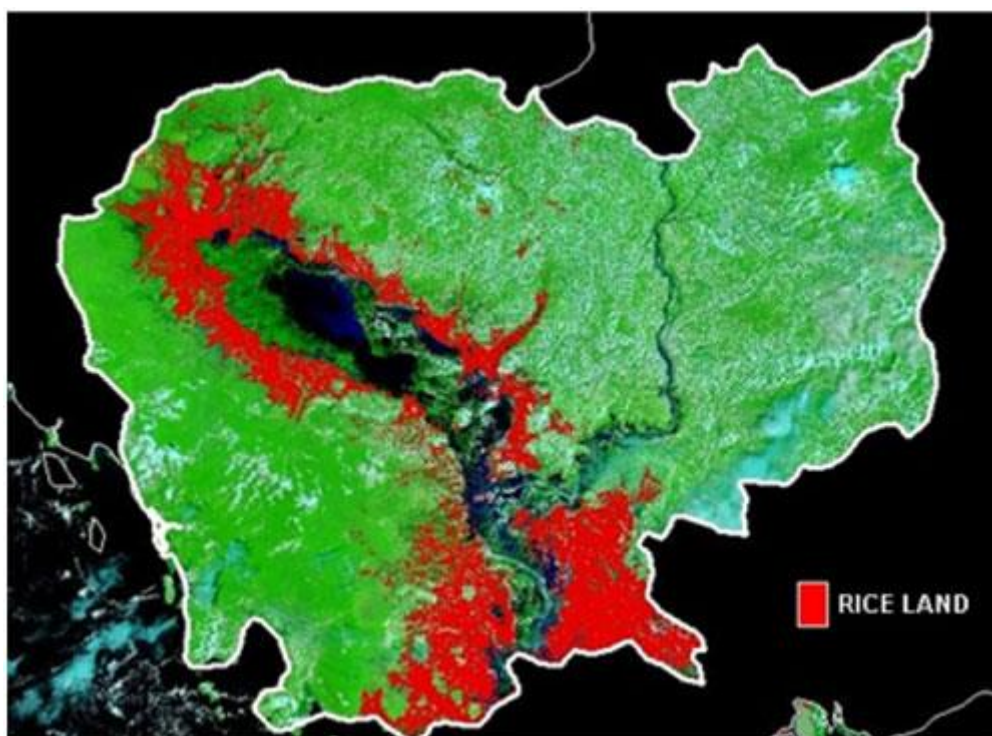


Figure 3.1 Rice land areas in Cambodia. Source: USDA, 2010

Rice milling, processing and exporting is a different matter. All of the companies involved with this research deal with multiple strains of rice and have the rice transported from their respective regions to the company's one or two main factory complexes often located semi-urban areas such as the outskirts of Phnom Penh (FSN, 2010). There are however, some exporters located rurally, closer to where their rice is produced and milled. Even though the rice milling facilities within the export sector are predominantly located on the outskirts of Phnom Penh or in rural areas, the majority of the companies complete the white collar operations of their business in headquarters located throughout the capital. All 10 exporter interviews were completed in the capital city of Phnom Penh. The interviews with the private sector were with the senior management in their headquarters and interviews with the other stakeholders took place at the universities, government ministries and NGO headquarters, also located throughout and up to the fringes of Phnom Penh.

3.4.1 Exporter interviews

The intention was to interview all 84 rice exporters from the year 2013 and an attempt was made to contact them all to ensure a significant, valid and reliable study; many however,

were unavailable for interview. These 84 companies were identified by the ‘Cambodian Rice Export Associations’ website and are listed in order of the amount of rice exported in the year 2013. Specifically, the aim of these interviews was to answer the first three research sub questions; the position of Cambodian youth in the sector, what motivations the exporters have and what opportunities the exporters are providing. Moreover, these interviews would also identify what the exporters anticipate will happen to the sector and youth involvement within it in the near future. The figure below shows an abbreviated breakdown of the questions asked during the exporter interviews, a full copy of the interview questions and a sample interview are located in the appendix.



Figure 3.2 Rice exporter interview question topic list.

The main issue encountered when attempting to arrange interviews was the lack of correct or current contact details for many of the companies. In the event, 10 dedicated rice exporters were interviewed. The main issue encountered whilst arranging interviews with the exporters was the lack of contact details for many of the companies. The Cambodian Rice Exporter Association website, names all of the previous year’s exporters but many do not have websites and are not in the ‘yellow pages’ directory. Furthermore, it was not

uncommon for listed phone numbers and email addresses to be out-of-date or unused. From a research point of view this meant that it was very difficult to locate many companies. Further issues encountered were the language barrier, time and budget constraints. The language barrier meant that many companies did not respond to emails or put the receiver down during telephone calls and the budget and time constraints limited the use of a translator to communicate with the companies, due to these issues 10 creditable exporters were available for interview within the scope of this thesis.

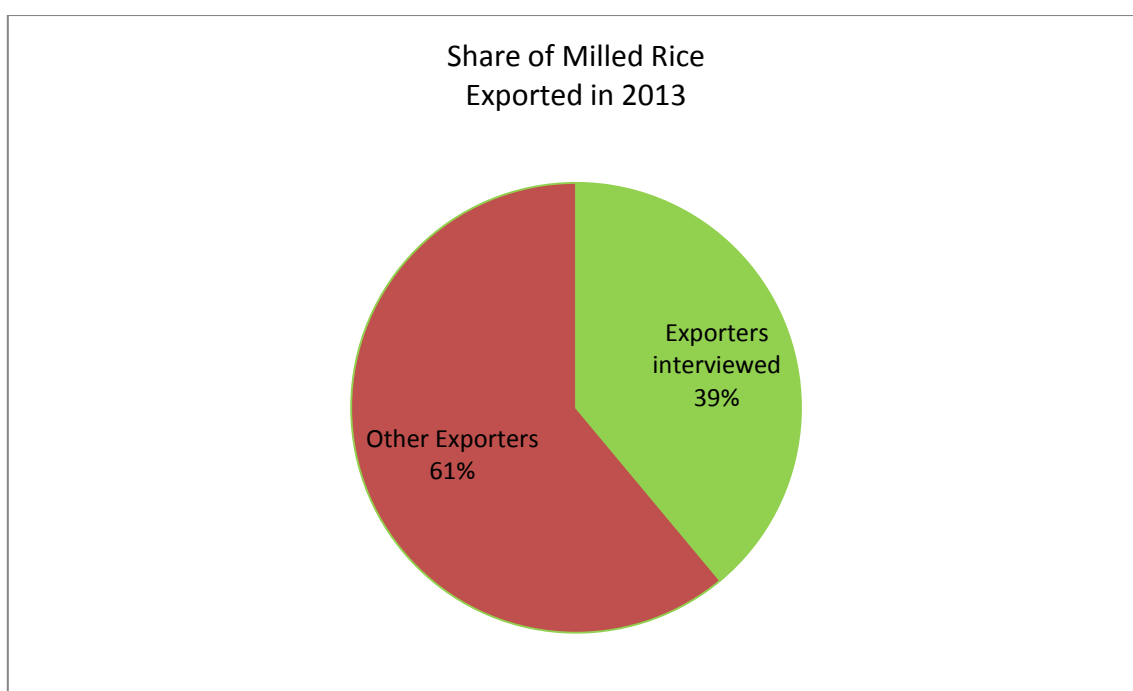


Figure 3.3 Share of milled rice exported in 2013 by interviewed and non-interviewed rice exporters.

In total 12% of the total number of exporters were interviewed, however, their market share is approximately 39% of the total rice exports for 2013, as shown in figure 3.3 above. It is likely that the amount of rice exported has a strong positive correlation to the number of workers within the company working on rice exportation; therefore it is probable that those interviewed account for a large percentage of the labour in the sector. Figure 3.4 below shows the amount of rice that each interviewed company exported last year. Even within the group of exporters interviewed it is obvious that there are large disparities between them regarding the amount they export. All companies interviewed were from the top 30 exporters and so the data is skewed to only represent the bigger exporters in

Cambodia. However, this is not a great disadvantage, the research is focused on rice exporters, and the smaller exporters tend not to be primarily rice exporters.

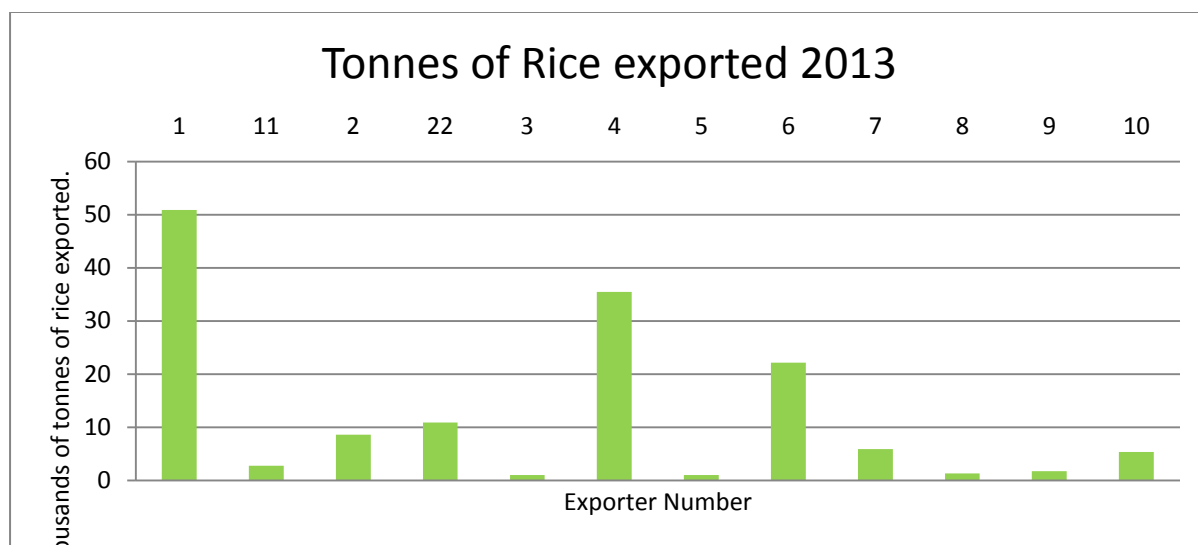


Figure 3.4 Thousands of tonnes of rice exported in 2013 by each company interviewed.

Figure 3.5 below shows the percentage of each company’s turnover that comes from rice, as can be seen within the collection of exporters interviewed for this thesis 8 out of the 10 companies are primarily rice exporters. The smaller exporters however, generally only export rice as a subsidiary of their company. For example, they may primarily export dried cassava chips and timber for 90% of their business and only 10% of their business is in rice exportation.

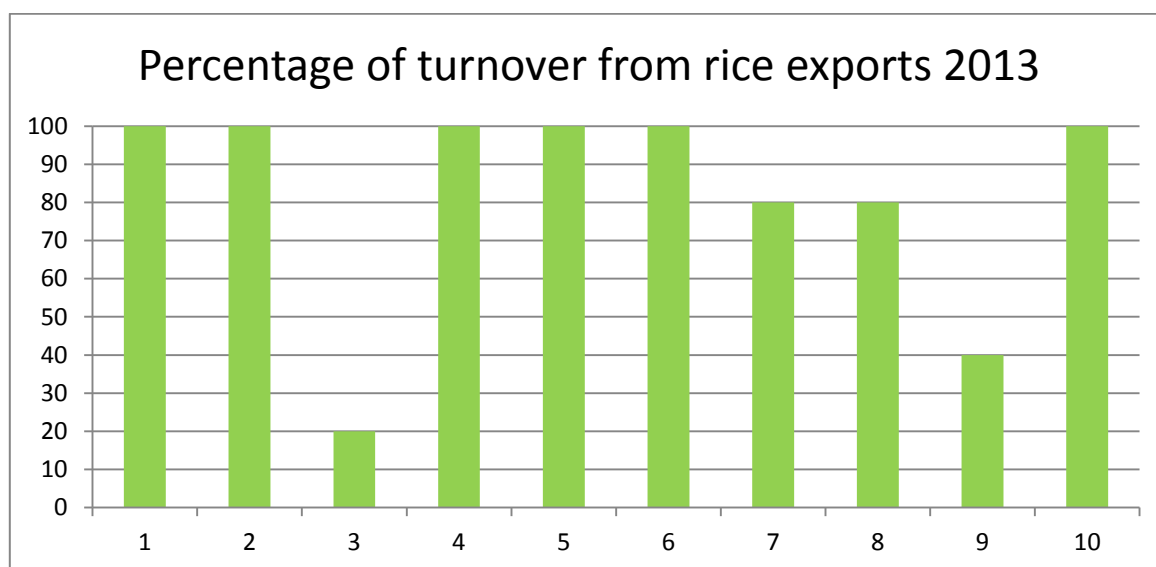


Figure 3.5 Percentage of turnover from rice exports in 2013

Exporter interviewees were anonymous but the table below gives a brief description of each to provide the reader with a better understanding of the companies.

Exporter Number	Nationality	Year Founded	Position in company	Products	Turnover from rice (%)
1	Cambodian	2009	CEO	Only rice	100
2	Cambodian	1998	Director	Only rice	100
3	Cambodian	1993	Deputy General Manager	Rice, dried cassava, timber	20
4	Cambodian / French	2008	Vice President	Only rice	100
5	Cambodian	2008	President	Only rice	100
6	Cambodian	1994	General Manager	Only rice	100
7	Cambodian	2010	President	Rice and dried cassava	80
8	Cambodian	2010	Senior Vice President	Rice and dried cassava	80
9	Cambodian	2010	Export Manager	Rice and sugar	40
10	Cambodian / Dutch	2013	Vice President	Only rice	100

Table 3.1 exporter interviewee details

The 'Cambodian Rice Export Association' website identifies and ranks the 84 rice exporters operating in Cambodia by the tonnes of rice they exported in the year 2013. However, the exact number of individual rice exporters is unknown. It was noticed when contacting exporters that there were a few that had the same owners or were different parts of the same companies. The interview from exporter 1 explained that his companies operated separately in different divisions with one exporting rice, one exporting cassava, and yet another importing fertilisers, and so on. Occasionally one company may import or export a product for their partner company. This results in the second company appearing on the

exporters list, when it is not a rice exporter by definition. This situation occurred twice among the ten companies interviewed (exporters 1 and 11, and exporters 2 and 22). In both cases only the single digit exporter was interviewed. Exporters 11 and 22 were therefore not interviewed, but their policies and thoughts are likely to be similar to that of 1 and 2 respectively, as they have the same management.

3.4.2 Rice exporter value chain activities

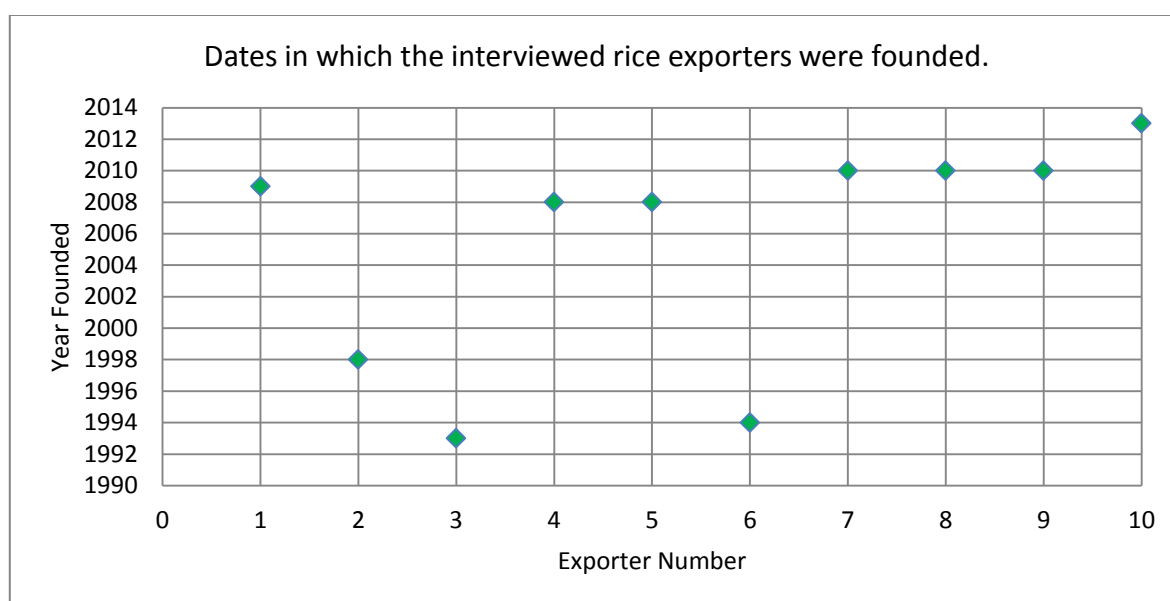


Figure 3.6 Years in which interviewed exporters were founded

Milled rice export is still typically a Cambodian sector and is of “critical importance to the Cambodian economy” (OECD, 2013: 4). 8 of the 10 exporters interviewed were completely Cambodian owned and the other two were both joint ventures between a Cambodian and a European, one being Cambodian-Dutch partnership (exporter number 10), the other Cambodian – French (exporter number 4). This matches CDRI’s report that approximately only 10% of foreign direct investment (FDI) in Cambodia is agricultural (CDRI, 2012).

Out of the companies interviewed, there is a split between those founded around the mid 1990’s and those founded in 2008 and beyond. The companies that started in the 1990’s began as companies catering to the domestic Cambodian market and have since made the leap to exporting. The companies that were formed between 2008 and the present were

formed with the main purpose to export however, may still sell a portion of their rice domestically as well. Figure 3.6 shows when the 10 exporting companies interviewed for this research were founded.



Figure 3.7 Exporter involvements within the rice value chain.

Different exporters in Cambodia control varying amounts of the value chain. 8 of the 10 exporters interviewed primarily do their own milling and quality assurance, 3 have some direct control over the growing process whereas the rest are completely dependent upon contract farming. 6, soon to be 7 of the companies are involved with the supply of inputs such as fertilisers, seeds, machinery and so on. Figure 3.7 above shows how many of the companies complete each of the activities located in the rice value chain in Cambodia.

The 3 companies with some direct control over the growing process were the smaller companies; their total employees were 35, 35 and 31 respectively. These were exporters 3, 5 and 8. Exporters 3 and 5 were two of the older exporters which dealt in domestic production and trade before switching to exportation. This legacy in domestic production could explain why they own rice fields as well as mills. Exporter 8 stated that they only did 'a little growing' and mainly sourced their rice through contract farming.

The 6 exporters involved in the supply of inputs (companies 2, 5, 6, 8, 9 and 10) were a mixture of both the larger exporters (2, 6 and 9), who have the capital to invest in the development of their farmer's farms; and exporters that are involved in products other than rice (exporters 8 and 9). Exporters 8 and 9 both deal in multiple products such as dried cassava, sugar and timber and also delve into other products such as machinery and fertiliser inputs. Exporter 10 also owns a Thai rice exporter and so he already had a good supply of fertilisers and so uses the same source to sell to his contract farms in Cambodia.

There are two exporters that do not mill their own rice (exporters 3 and 9). They follow a business model very different from the framework set out by the other companies. Exporter 3 is part of all aspects of the value chain apart from transport (which very few exporters were part of) and milling. This exporter explained that it contracted out the majority of its milling. Exporter 9 had the smallest number of places in the rice value chain out of all exporters interviewed only supplying inputs and then packaging, branding and selling the rice and thus is focused on high value added, top of the chain activities. Exporters 5 and 8 were the exporters with the most value chain activities, Exporter 5 was involved in everything apart from the transport aspect of the value chain and Exporter 8 was involved in the full value chain.

Figure 3.7 illustrates, that although the structure of many exporters is very different, a general framework that exporters follow can be created. It is most likely that a rice exporter will use contract farming to get a supply of rice, they will then mill, quality test and brand the rice themselves, before ultimately exporting the rice to a foreign country.

3.4.3 Rice exporter employee numbers

There is large disparity in the size of the rice exporters functioning in Cambodia at the moment. This is evident as the top 10 rice exporters alone accounted for 68% of the rice exported in Cambodia in 2013 compared to the 32% shared by the next 74 exporters (CREA, 2014). The companies interviewed for this research reflect this. They varied in size from 25 people to a maximum of 600 people during their peak season around the months of November and December (Exporter 4; CREA, 2014). All companies interviewed were among the top 30 biggest exporters of last year. In the smaller companies, not interviewed, it could be assumed that there are not many workers dedicated to rice; however, it cannot be assumed that the smaller rice exporters are small companies. Many of the smaller rice exporters operate in other sectors, for example dried cassava chip, rubber and timber export. Therefore, the 54 smallest rice-exporting companies may not be small in terms of total company size. Exporter number 9 for example, is the 3rd biggest exporter interviewed in terms of labour size but is the 7th in terms of rice exported. The exporter explained that

this is because only 40% of the company's turnover comes from rice with the other 60% coming from sugar exportation; it therefore has a lot of workers in sectors other than rice.

3.5.1 Student interviews

Interviews with undergraduates studying 'agro-industry' and 'food-science' courses were chosen as it was decided that this demographic covers educated youth in Cambodia likely to have knowledge of and interest in joining the rice exportation sector. They are the group most probable to have interest in the industry because these degree topics match the skills needed in the industry. Results from interviews with students on other courses or additional youth would likely result in very limited relevant data. In total 10 students, all in their final year of 'agro-industry' or 'food science' courses from the 'Royal University of Agriculture of Phnom Penh' were interviewed.

Interviews with the students were used to identify a multitude of aspects surrounding youth involvement and development within the rice exportation sector:

1. Knowledge of the rice export sector

How much do these students know about the sector?

Do students on these courses want to enter the rice exportation sector?

2. Students education

Do the students feel their education prepares them for entry into this labour market?

How do the students feel their skill levels could be improved?

3. Entry into the rice export sector

How much do the students know about the rice exporters initiatives?

What are the students opinions of the rice exporters initiatives?

What do the students think could be done to increase employment opportunities in this sector?

Figure 3.8 Students interview topics

The effectiveness of any initiatives that have been introduced by the rice exporting companies, and what initiatives the students prospective to this industry would like to see implemented were revealed.

3.5.2 Student knowledge of the rice exportation sector

Subsequent to the exporter interviews, further interviews were conducted with two students studying 'food science' and 8 students studying 'agro-industry' at the 'Royal University of Agriculture'. All students were Cambodian in ethnicity, between the ages of 20 and 24 and in their final year of university. Due to the content of these courses, these university students are likely to have an interest in and desire to work within rice milling and exportation. During the student interviews, questions were asked about rice milling, in addition to rice exportation. During the exporter interviews it was exposed that most companies in the export sector mill their own rice, thus a lot of the positions within these export companies overlap with the milling part of the value chain and if the students were only asked about exporters, they may not consider milling a part of the company.

As Table 3.2 shows, 9 out of 10 students interviewed expressed an interest in working within food technology, agro-industry or other post-harvest positions. 3 of the 10 students (numbers 2, 5 and 6) specifically mentioned rice millers or exporters with one of them (student 6) stating that it was his goal to own his own rice exporter. Student number 3, who had little interest in working within a rice miller or exporter, explained that the reason behind this was that he already had plans to work on his family farm once he graduated.

The main reasons indicated for the students wanting to join the sector were:

- Its usefulness to the economy.
- The recent growth of the sector.
- The fact that the sector is decidedly related to what the students study and therefore would be a good job to transition to after graduation.

Student Number	Age	Gender	Ethnicity	Course	Year of study	Job wanted, post-graduation
1	21	Male	Cambodian	Food Science	3	Work in food nutrients
2	23	Male	Cambodian	Agro-Industry	3	Work in rice or sugar mill
3	24	Male	Cambodian	Food Science	3	Work on my family farm.
4	21	Male	Cambodian	Agro-industry	3	In a company related to food industry. Post-harvest and micro-biology.
5	21	Male	Cambodian	Agro-industry	3	Work in a company related to agro-industry, like milled rice. Or in processing food or storing food.
6	21	Female	Cambodian	Agro-industry	3	I want to own my own rice exporting company
7	21	Male	Cambodian	Agro-industry	3	Job related to this faculty, such as food processing or similar
8	20	Female	Cambodian	Agro-industry	3	In a company related to the food industry.
9	20	Female	Cambodian	Agro-industry	3	Tiger beer or Coca-Cola, a company related to my study.
10	22	Male	Cambodian	Agro-industry	3	A company like tiger beer, Coca-Cola or something similar that is related to my study.

Table 3.2 Student characteristics

University students studying agro-industry and food-science courses in Cambodia have knowledge of the growth and importance of the rice milling and export sector and are interested in joining it. Moreover, there is significant evidence from the rice exporters themselves that youth amount to a substantial portion of the workforce in this industry.

3.6 Educational Facilities interviews

Deans of the 'agro-Industry' and 'food-Science' departments of both the 'Royal Agricultural University of Phnom Penh' and the 'Institute of technology of Cambodia' were both interviewed. These interviews provided more formal information than the students, for example, how many students study on these courses, the outline of the courses and so on. These interviews also revealed whether the students and lecturers have a similar outlook on the importance of Cambodian rice exporters as employers and how to improve youth and student's skills and abilities within this sector. Two specific universities were chosen because they are two out of the three universities in Cambodia offering a 'food science' course. The other university, the University of Battambang, was unable to be contacted due to an inactive phone number and email address. The 'Institute of Technology' does not offer an 'agro-industry' course. During research it was discovered that 'Don Bosco School – Battambang', a Catholic technical training school, teaches students skills related to the rice export sector but again this school was unable to meet for an interview due to scheduling conflicts.

3.7 Government Ministries and NGO's interviews

In answering the final research sub-question and thus completing the main research question, members of government ministries were contacted so that feasible policy recommendations could be suggested. Ministries contacted for comment were the 'Ministry of Education, Youth and Sport', the 'Ministry of Agriculture' and the 'Ministry of Labour and Vocational training'. A meeting was held with all three ministries, however, MoEYS declined to answer any questions saying that the 'Ministry of Agriculture, Forestry and Fisheries' (MAFF) would be a more applicable match. The MAFF at first declined an interview stating the 'Ministry of Technical Vocational Education and Training Management' (MTVETM) would be able to provide more information, which in turn referred the interviewer back to the MAFF. Eventually an interview was conducted within the Ministry of Agriculture. This study could be improved by speaking to the other ministries as the research overlaps with the aims of all 3 ministries. As the other two ministries could not be interviewed, an NGO was contacted to get another perspective on the research.

3.8 Analysing data

The data collected for this study was analysed through a number of software applications. 'SPSS (Statistical Package for the Social Sciences)', 'Nvivo 10' and the 'Microsoft Office 2010' package including 'Microsoft Word', 'Excel' and 'Powerpoint' were all used to disseminate, correlate, analyse and present the data revealed during this thesis. Each of the aforementioned software packages had an individual use.

- 'SPSS' to measure and correlate data
- Excel to create tables and graphs
- Nvivo to code and analyse similarities between interview answers

Data from the interviews were made into graphs and charts. The findings were then interpreted according to research objectives. Transcripts from interviews were typed up and coded for ease of reference via the software packages 'Microsoft Excel' and 'NVivo 10' as per the thesis' objectives. Once coded and analysed using the aforementioned software packages, it was decided for this thesis that the findings would be separated from the full analysis and discussion; which in turn will occur in the chapters succeeding the findings. This was preferred as a full understanding of each set of interviews is necessary before analysis and feasible policy recommendations can be made and understood.

3.9 Limitations

Several challenges were encountered during the course of this research. The time and manpower available in order to conduct this research was a constraint (12 weeks, 1 person). The sequential nature of the interviews meant that steps forward within the research had to occur consistently, resulting in in the number of responses possible being limited. Further limitations in data collection occurred because of the lack of availability of companies to partake in interviews, the language barrier resulting in non-responsive emails and phone calls, the accessibility of companies correct contact details and budget constraints limiting the use of a translator which in turn restricts participation of some parties.

This study could be improved by speaking to more members of Cambodian ministries as the research overlaps with the aims of all 3 ministries. Speaking to another member of MAFF would be useful to see if some of the more controversial views that arose are replicated. Furthermore, the MTVETM and MoEYS ministries would likely have interesting views on this topic. Moreover, it is expected that interviews with the two other educational facilities that offer courses in agro-industry and food-science related topics, the University of Battambang and Don Bosco schools, would be enlightening. It is a pity that interviews with these institutions were unattainable due to scheduling conflicts, especially as Exporter 3 spoke of progressive connections with Don Bosco Battambang; it thus would have been illuminating to have spoken to the principal. Furthermore, the study could be improved by interviewing a larger group of youth, however, with time, budget and manpower constraints, interviews had to be prioritised. Therefore, only youth with a high probability of knowledge about the industry were interviewed.

Besides the breadth of the interviews there was the potential for bias from the interviewees. There were a few instances during the interviews in which the interviewees may have given 'socially acceptable' or bias viewpoints. Within this thesis, bias viewpoints are of little concern as the research is concerned with each participant's own opinion. Socially acceptable answers are of greater concern for the accuracy of this thesis as the exporters may have stressed a greater motivation to help youth than they actually feel. Motivated by trying to appear socially responsible; however, these views should be limited as the interviews were conducted anonymously.

4. INTERVIEW FINDINGS, RESULTS & DISCUSSION

The findings have been separated and displayed sequentially in the order of the sub-research questions. The outcomes will be displayed foremost in a text format, with analytical graphs, pictures and displays presented where appropriate.

Sub-research question 1)

What is the position of Cambodian rice exporting firms and youth involvement within them?

4.1 Youth involvement within rice exporters

The percentage of youth in each company varies drastically from 9% (Exporter 5) to 90% (Exporter 7). There are 5 companies with more than 100 people working for them and 5 companies that fall short of this mark. The five biggest companies have an overall average of 50.2% youth in them whereas the five smallest companies have 48.6%. There is therefore no obvious correlation between company size and the percentage of youth hired. The biggest company with around 400 people across all types of workers has 79% youth (Exporter 4), and a company with 29 people has 90% youth (Exporter 7). One company (Exporter 9) could only give an overall number of workers and percentage of youth and did not have access to breakdown data of each position. Exporter 10 explained that they didn't have any unskilled labour, they contracted the work out to another company through whom they paid the workers 5000 riel (approximately \$1.25USD) per tonne for manual lifting and moving jobs.

One trend from the data is that the more skilled the work is the fewer 'youth' are involved. All but one company (Exporter 8) have a sequential loss of youth workers as the work becomes more skilled or white collar in nature. This follows the obvious trend noticed in other studies (CAMFEBA, 2008; ILO, 2010; OECD, 2013) that as work becomes more skilled, more years of training or schooling are required to learn the applicable skills and gain employment into these jobs; therefore by the time the youth are skilled enough to be employed in this work they are often no longer youth, but adults. Table 4.1 below shows a

complete list of the numbers of workers and the percentage of youth across each exporter interviewed.

	Exporter Number										
Job type, youth	1	2	3	4	5	6	7	8	9	10	Total
Unskilled	75	50- 100	20	100	18	70	15	17	N/A	0	49
% youth	78%	25%	60%	95%	17%	80%	100%	12%	N/A	N/A	58%
Skilled	20	30-50	13	200	14	67	11	10	N/A	20	44
% youth	60%	25%	55%	80%	0%	45%	100%	20%	N/A	95%	53%
Management	25	40-50	3	100	3	30	3	4	N/A	5	24
% youth	8%	33%	0%	60%	0%	15%	0%	0%	N/A	0%	13%
Total	120	120- 200	35	400	35	167	29	31	150	25	115
% youth	60%	27%	55%	79%	9%	55%	90%	13%	30%	76%	49%

Table 4.1 Number of workers and percentage of youth in each exporter.

To conclude, each company differed in terms of value chain activities, company size, export amount, and moreover, the number of youth they hired. In total, across all companies interviewed the average percentage of youth in each position is 58%, 53% and 13% for unskilled, skilled and senior staff positions respectively.

Sub-research question 2)

What motivations do rice exporting companies have for providing opportunities to the younger generations?

The literature shows evidence of the Cambodian government adopting “a three-pronged strategy to develop its agriculture: productivity enhancement, diversification and transition from subsistence to commercial agriculture” (OECD, 2013: 3). However, as formerly discussed, human capital development in Cambodia is deficient. An OECD (2013) study showed that output per worker is lower in Cambodia than any other South-east Asian Country (figure 4.3). One could assume that providing opportunities to develop ones workforce would therefore be a major concern.

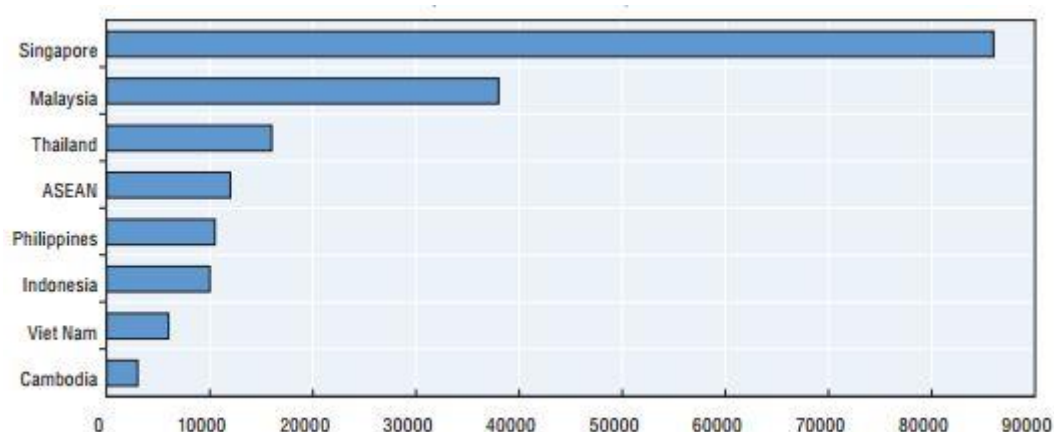


Figure 4.1. Output per worker among South-east Asian countries. Source: OECD, 2013.

To gauge what motivations rice milling and exporting companies have to provide skill development opportunities to youth, specifically students, it first must be understood what attributes companies look for in workers and what the advantages and disadvantages of hiring ‘skilled youth’ are. Furthermore, this chapter will examine the companies’ projections for future development, i.e. turnover expectation and employee changes.

Factor	3 Most important attributes for workers		
	Unskilled	Skilled	Management
Good work attitude	8	4	3
Computer proficiency	1	1	
High school education	2	2	
University or higher education	2	1	3
Analytical skills		3	2
Family or friends ties to company	1	1	1
Decision-making skills	1	1	3
Communication skills	1	4	1
Technical skills	2	4	
Previous experience		2	3
Ability to speak a foreign language			
Leadership skills			5
Good time management	4	1	1
Loyalty	4	3	5
Cambodian ethnicity			
From local area / has local knowledge			
Other	1		

Table 4.2 The skills and traits exporters consider most important for new workers to have.

Table 4.2 above shows the complete list of skills and traits that exporters thought were the most important for new workers to have. On average, across all 3 types of worker; skilled, unskilled and senior staff, the two most important attributes, in the opinion of the companies interviewed is that there is loyalty and a good work attitude. The exporters confirmed that the majority of new workers must be trained into their positions when they first start working at the company. The companies all identified rapid worker turnover as being an issue that largely explains why the exporters classify having a ‘good work attitude’ and ‘loyalty’ as the most important attributes for new workers to have. This result has parallels to the CAMFEBA (2008) study. They found that across all sectors, 77% of employers said that the top two recommendations they would give to young Cambodians to help them find a good job would be to “develop the right attitude – be professional, prepared to work hard, willing to learn” (CAMFEBA, 2008: 92). A good work attitude is linked to working hard,

bouncing back after challenges and generally being adaptable. As the rice exporting companies have to spend a lot of time, and therefore money, training new workers it is important that they are adaptable and hard working. Furthermore, beyond the loss of productivity through training new workers, companies saw rapid worker turnover as a matter for concern because the industry is still in its infancy and thus the companies are afraid of losing secrets and competitive advantages to rivals. Therefore, loyalty and by extension trustworthiness, are seen to be very desirable attributes for new workers to have.

Rapid worker turnover was recognised by the exporters as one of the primary motivations for the use of family and social networks as an important hiring method. The exporters felt that if the workers had a connection to the company, even if only tentatively, they would be more likely to have a better attitude, stay at the company for longer and be less likely to give away secrets or help the competition. The assumption being that if the workers' friends and family are all part of the company they have more reason to want it to succeed and therefore the senior management prefer this method as it builds the company into the workers lives so that it virtually becomes an extended part of their family. In addition many of the companies are family owned thus they want to extend the business out into their extended family, their friends and their friends families.

Other than these two factors, the results of these interviews were as anticipated. Unskilled workers don't require many skills beyond a good attitude and good time keeping abilities. Many of the exporters struggled to choose a third skill that youth would need in order to perform unskilled jobs, the large spread of 1's and 2's under this category portray this diffidence. As could be expected, it is important that skilled workers have technical, analytical and communication skills on top of experience, loyalty and a good attitude. Finally, it is important for professional or management staff to have leadership and decision making skills in addition to being loyal and having a good attitude. It is therefore of less importance for the top tier workers to have technical skills as they have progressed to leadership roles.

When asked about the advantages, disadvantages and differences between hiring youth and adults, all the exporters detailed a wealth of advantages concerning the hiring of youth.

There were four distinct categories that the exporters commented on regarding advantages:

- the youth's attitude
- their ability to do the work
- their cost
- their supply (the number of young workers in Cambodia)

The youth's attitude was commented on many times, the exact phrase 'eager to learn' was used by exporters 1, 3, 4, 9 and 10, and moreover, terms like 'respectful' and 'easy to communicate with' were also mentioned. The abilities of the youth were also of high importance to the companies, 3 companies stated the youth were 'quick to learn' skills that were taught to them and contained other significant attributes such as being 'smart, strong, energetic, fast and dynamic'.

The disadvantages of hiring youth were less prevalent than the advantages. Two categories of disadvantages emerged:

- Youth's skills; principally that the youth were unskilled, inexperienced and their education had not provided them with skills that matched the labour market.
- Youth's attitude; 3 of the companies (Exporters 2, 3 and 5) had previously had some bad experiences with youth maintaining that some youth were 'unreliable, immature and not loyal to the company'.

The only company that did not prefer youth workers was Company 5, stating that non-university educated youth were immature and their main reason for not hiring many young people, preferring adult workers, was that they believed all youth should complete higher education and the management preferred graduate employees.

The companies stated that educated youth, who had diplomas or degrees and who could be considered as having some experience, were found to simply not be qualified for the work they were hired for. The exporters clarified that students with diplomas and degrees in 'food-science' or 'agro-industry' made little difference compared to students without. Exporter 7 commented "it seems as though graduates have never seen a machine in their life". The exporters all highlighted that there was a mismatch between youth skills and

labour requirements. This mismatch is appears to be present across many sectors, the CAMFEBA (2008: 85) interviews with employers showed that “11 per cent of employers believe youth possess none of the skills needed for the workplace, while another 76 per cent believe they possess some – but not all – of the required skills.”

Overall the exporters were very positive about Cambodian youth. Apart from Exporter 5 the motivation to hiring younger workers outweighed any disadvantages. The other 9 companies thought it was important to have youth working at their company, not only for their own benefit but, for the benefit of all of Cambodia. This complements the UN’s (2010: 63) findings that “enhancing Cambodia’s human resources, particularly youth, is crucial for the country’s economic future”. Exporter 4 said “85% of Cambodian farmers are rice farmers and 80% of the population live on that. The sector that we are involved in, milling and export, is fairly new and so it’s important that we get young people now that can sustain this industry”. Even with the challenges and difficulties alleged by the companies, all exporters interviewed had high hopes for the future of Cambodian youth.

4.2.3 Exporter’s future prospects

Table 4.3 shows the complete data of how the exporters believed their company would change in the next 3 years in relation to expansion in terms of output, profits, labour and youth employment. Based on these outcomes, the rice exportation sector has very good prospects for the future and looks to continue its huge growth.

How the 10 exporters expected their companies to change in the next 3 years.					
	Strongly decrease	Decrease	Stay the same	Increase	Strongly Increase
Tonnes of rice exported				7	3
Turnover				6	4
Unskilled workers		2	1	5	2
Skilled workers			1	7	2
Management			2	6	2
Percentage of youth			2	6	2

Table 4.3 How Cambodian rice exporters expect to change in the next 3 years.

- All exporters interviewed as part of this research believed that they would have increased or strongly increased tonnes of rice exported over the next 3 years
- They all anticipated that their turnover in dollars would increase or strongly increase
- 8 out of 10 milled rice exporters believed the percentage of youth working at their companies would increase or highly increase over the next 3 years.
- 9 out of 10 exporters expect the number of skilled workers to increase or strongly increase in the next 3 years.

The projected increases in youth would suggest that young Cambodians are becoming more important in this industry. Moreover, the expected expansion in the number of skilled workers signals the increasing importance of developing human capital in this sector. Cambodian students studying agro-industry and food science related courses fulfil both these criteria and therefore companies should have motivations to employ the youth. Furthermore, with the projected doubling of Phnom Penh's population between 2005 and 2025 to 2.91 million (UN-Habitat, 2008: 167) the supply of youth workers will significantly increase.

By looking at the two graphs below, figures 4.2 and 4.3, a comparison of the exporter's expectations for the next 3 years with how the exporters have changed in the previous 3 years can be made. By studying the two graphs below it is evident that the exporters expect to continue growing in very much the same way that they have been. This data therefore is

in line with the government’s plans for this industry’s future economic importance as outlined by the ‘National Strategic Development Plans’ (2010).

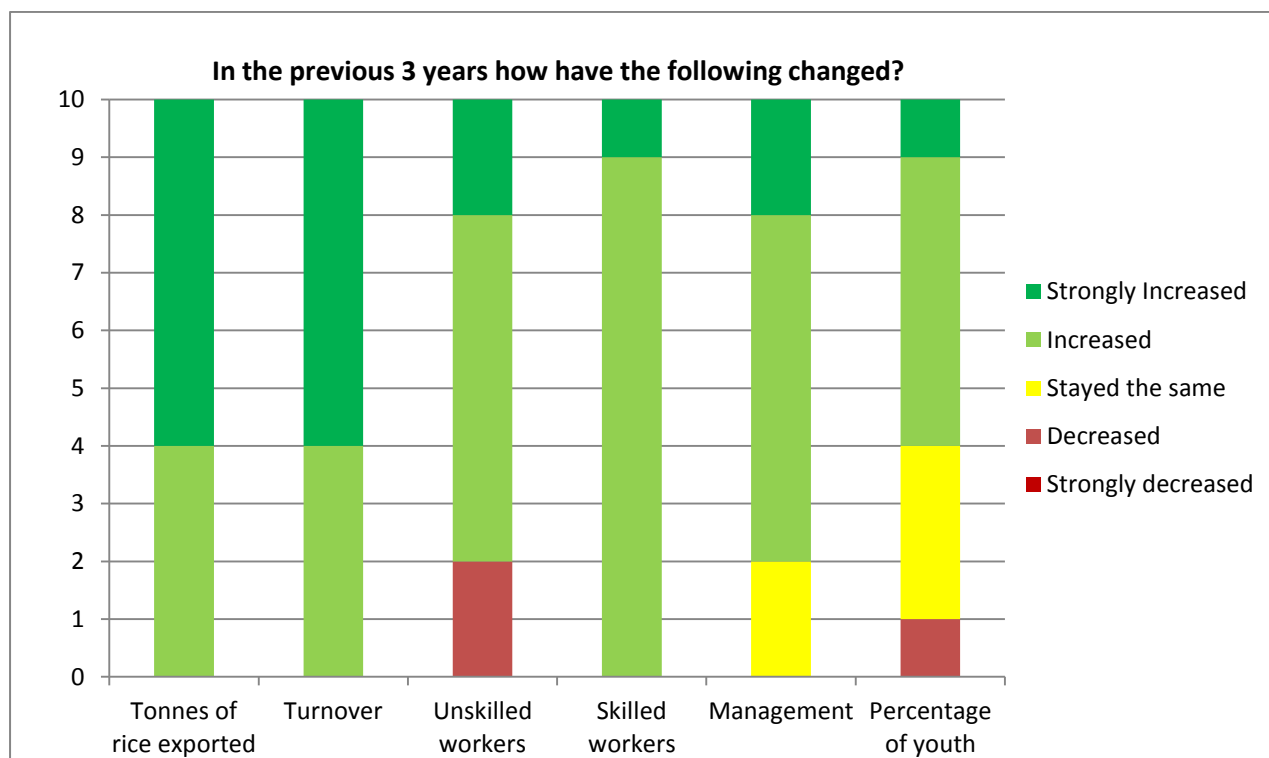


Figure 4.2 How Cambodian rice exporters have changed in the previous 3 years.

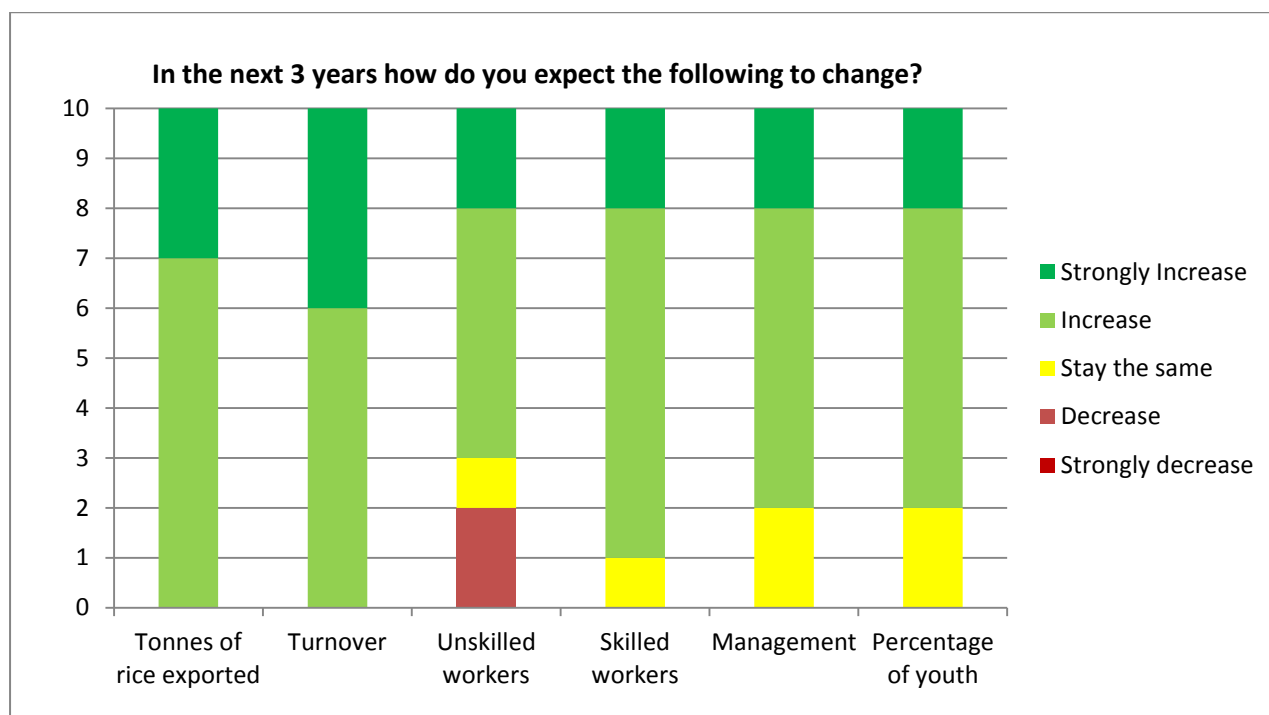


Figure 4.3 Cambodian rice exporters expectations for the next 3 years.

In summary, as youth encompass a large percentage of the employees within rice exporting companies and furthermore are favoured over older workers by the majority of the companies interviewed, it would indicate that exporters had motivations to increase youth skills and job opportunities within the sector. These companies should have particularly strong motivations to help develop the human capital of students training to become skilled workers as the exporters agreed that two of their biggest issues are human resource skills and the speed of worker turnover. Furthermore, a large pool of the company's future workers will come from Universities and technical schools and their future projections show that the biggest increases in labour will be amongst the skilled workers. Hence, partnerships with these educational facilities and youth skill development should be a primary focus of these companies.

Sub-research question 3)

What initiatives have been taken by rice exporting companies to solve problems regarding young educated Cambodian's employability?

It became apparent during the interviews with the Cambodian rice exporters that there were few initiatives taken by the rice exporting companies to solve the problems of educated Cambodian's employability. Outlined below are the companies hiring techniques for their workers and their thoughts on other hiring techniques that could possibly provide mutual benefits, such as internships and connections with technical schools and universities.

4.3.1 Exporter's hiring methods

Finding and hiring workers through personal and family connections was the method most commonly used among the exporters. 9/10 companies identified this as being one of their primary methods of searching for workers (all companies bar exporter 4). The exporters said that this was such an important hiring method because it meant the workers had a connection to the company and thus were more loyal and trustworthy. 6/10 of the companies (Exporters 1, 2, 3, 4, 6, 9), generally the larger ones, would use advertisements

on the internet as well, for the breadth of people who could be contacted. Two of the biggest companies interviewed also used head-hunters or recruitment agencies for specialised or managerial positions as it meant an external company would handle recruitment, leaving the exporter to spend more time on work and less time sifting through applications (companies 2 and 4). A few of the exporters mentioned that it was very time consuming to go through applications due to the number they received through the internet. Only 2 companies (exporters 3 and 6) identified internships, volunteer or training programmes as one of their main methods of hiring workers. However, most companies mentioned using them to some degree.

4.3.2 Internships

Internships were used as a hiring tool by 6 of the 10 exporters interviewed (Exporters 1, 2, 3, 4, 6, 9). The 4 companies (Exporters 5, 7, 8, 10) that did not offer the internships were the 4 smallest rice exporters interviewed. Out of these companies, numbers 5, 7 and 10, had no interest in starting internships; their reasons were because their companies were too small or they simply did not see internships as necessary for the company's business plan. A fear shared among the exporters was of youth worker turnover. These 3 companies said they often have workers join and within a short period of time the employees would leave for another company that paid more, often located in Thailand or Vietnam. These exporters therefore did not believe it worth their time to provide internships and train workers likely to leave soon.

The 6 companies (Exporters 1, 2, 3, 4, 6, 9) which did offer internships did so to varying degrees. None of them had a yearly graduate scheme or similar programme. All companies offering internships did so, on a case by case basis. It is surprising that internships are not integrated more into company policy as many previous studies in Cambodia emphasise the potential benefits of internships and similar programmes for both the companies and youth involved (CAMFEBA, 2008; UN, 2009; OECD, 2013). All companies with internships however, did state that that were very successful for both the companies and the youth's development and across all companies there was a high hiring rate for students who had completed their internships.

4.3.3 Exporters connections with universities

All the exporters expressed concern that the university degrees and technical schools did not sufficiently prepare the students for work in the rice export sector, recognising that there was a mismatch of skills between the youth's expertise and the labour market's requirement. The skills mismatch is largely due to a lack of practical experience and the under use of applicable theory. It was revealed that the exporters had few formal connections to the technical schools and universities located throughout Cambodia however, as a sizeable percentage of all the exporters' workers come from these universities and schools, the mainstream opinion of the exporters was that they saw value in expanding connections to the schools. Exporter 1 said they plan on having more formal connections with schools and universities "because we recruit at least 20 [youth's] every year in quality control and production, both need skills for food safety, you know we need skills." Exporter 4 also agreed, stating "it would be good, we would like to have a more formalized programme with the Agricultural University but it is a programme that needs to be started and ties put in place".

Currently there are two progressive schemes or connections between universities or schools and the rice export industry. One company had approximately 30 students from 'Don Bosco School – Battambang Province' undertake a short internship. Exporter 4 said this was very positive for both the students and company, "it's pretty good, especially for Don Bosco, they go to a vocational school and so they should already have some training but we think it is good that they are trained in our environment." Exporter 6 hosted the students from the 'agro-industry' course at 'The Royal University of Agriculture' for a 3 day visit to their factory, which raised awareness of rice exportation among the youth although was not an all-encompassing visit which would increase the youth's practical abilities or skills. Beyond these schemes the only other connections between exporters and educational facilities is for limited job advertisements and hiring.

From the information obtained during the interviews with exporters it would appear that the main reason the sector is not connecting or developing youth skills beyond training new workers, is that the sector is still new and has limited capabilities to do so in its current

capacity. The area that indicates the best prospects for youth skill development is through building connections and relationships between the universities, technical schools and the export sector. This area appears to be the easiest and most likely way to increase youth skill development whilst increasing companies' productivity, building connections and supporting the schools costs very little money and should supply the companies with better workers from the start of their work contract, therefore lessening the negative effects of worker turnover.

Sub-research question 4)

How effective do Cambodian students think initiatives implemented by the rice exporting companies have been?

The students interviewed showed that the initiatives imposed by the rice exporting companies were poor, students had interest in joining the rice export sector yet they knew of very few opportunities to join or gain experience in the sector, student 8: "not a lot of people know about rice milling but it is very important in this country". However, the students didn't just expose a lack of private sector involvement in their education, but also a deficiency in their degree course altogether.

The students interviewed exposed a paradox. They believed that a university degree is necessary for them to attain employment, yet they also believed that their degrees do not actually prepare them for work. When asked how difficult the students thought it was for themselves, and youth in general to find employment, the general consensus was that it could be hard, but that it would not be too difficult for them because they will have a degree. Student 4: "I do not feel confident to work, I think I can do it but I would like to have some more training" and Student 5: "In here we study but I do not think that it is enough to prepare myself for a job when I'm finished". All 10 students interviewed recognised that they would need more training before they were capable of performing the jobs they wished to attain, thus they were in agreement with the exporters that there is a mismatch of skills between what educational facilities teach students and what the labour market demands. However, they were not in agreement about the importance of obtaining a

degree, in the students eyes, degrees are central to gaining employment. Student 8 said “a student with an ability in language and who has skills can find work easily but those that do not study will find it hard” and Student 10: “if you have no knowledge then you cannot find a job but if you have knowledge it is very easy.” On the other hand, the exporters maintained that the most important skills for workers to have were a good attitude and loyalty, two things which are not easily teachable.

Most important attributes for skilled workers	Students	Exporters
Good work attitude	4	4
Computer proficiency	1	1
High school education	1	2
University or higher education	5	1
Analytical skills	1	3
Family or friends ties to company	0	1
Decision-making skills	2	1
Communication skills	3	4
Technical skills	7	4
Previous experience	1	2
Ability to speak a foreign language	3	0
Leadership skills	0	0
Good time management	1	1
Loyalty	0	3
Cambodian ethnicity	0	0
From local area / has local knowledge	1	0
Other	0	0

Table 4.4 Most important attributes for skilled workers to have as chosen by 10 students and 10 exporters

As with the exporters, the students were asked which 3 attributes they believed to be most important when joining work. The exporter interviews showed that there is generally a very small percentage of youth in professional staff positions due to the time it takes for one to be experienced enough to enter these positions. Unskilled positions require no qualifications and are unlikely to be of interest to university students. Therefore, unlike the

exporters, the students were only asked about skilled work as this is the type of job the students would likely be looking to attain post-university. Table 4.4 above shows a comparison between what the students and exporters believed to be the most important attributes for skilled work. The results of this table show that the students and exporters have, in general, similar thoughts on which attributes are most important. The main difference, being the importance the students attributed to higher education compared to the significance of loyalty to the exporters.

The students interviewed currently study a module on rice milling in their second year of their course however, beyond increasing awareness of the sector, its usefulness appears questionable. The students identified issues with their degree:

- Currently the degrees lack work and practical experience; the module on rice milling currently involves no practical work at all and as articulated by student 10 “studying is good but with practice we get experience”.
- The university laboratory has a poor level of equipment and currently nothing related to rice milling.
- The teachers have no experience and little understanding of rice milling and exporting processes.
- There is very little private sector involvement.
- The students don’t know where or how to find work.

The student interviews elucidated that in total, private sector involvement is weak.

Students had:

- A few talks on rice milling from ex-students.
- A visitor from Thailand once.
- A three day visit to an exporter’s factory previously identified in the exporter findings.
- Only 3 students (2, 5 and 6) had even heard of internships available within the rice milling or export sector and only student 6 had undertaken one.

The students accredited a dearth of internships occurring within the rice milling and export sector for the following reasons:

- The internships were not publicised sufficiently.
- The requirements were too high for students.
- The students don't have time to undertake one around their studying and household duties.
- The internships are located too far from where the students live.
- The students cannot afford to travel to the internships.

To conclude, the students identified a series of issues that can broadly be categorised under 3 headings: the quality of their education, the applicability of what they are taught and the student's accessibility to the labour market. Possible solutions to these sets of issues will be discussed in Chapter 4.5.

Sub-research question 5)

What initiatives would students prospective to this industry, educational facilities and the government like to see implemented?

a) Students

Interviews with the students, university lecturers and a member of the Government helped not only acknowledge the issues in students' development within this industry but also ways in which they believe degrees could be made more applicable for the labour market. The following chapters will establish these ideas.

4.5.1 Students' recommendations for connections between educational facilities and the private sector

Many students recognised that one way of increasing a student's experience is by developing connections with the private sector. Student 7: "I think that companies should

come here and train us and more of the young people in Cambodia because most of us do not have much knowledge of work". Currently private sector involvement is lacking.

Students at RUA had:

- A few talks on rice milling from ex-students.
- A visitor from Thailand once.
- A three day visit to an exporter's factory previously identified in the exporter findings.

To help improve the student's skills and employability all 10 students wished for greater participation by the private sector; "they can help each other; it is about communication between each other, it is very important for them to share" suggested student 4. This participation could include further guest visits, additional trips to factory sites, internships, job advertisements in the faculty and if cooperation is great enough, the companies can have familiarity with the students themselves so that they can employ workers straight through the university.

All 10 students believe that internships, volunteer and training programmes are very effective, student 7: "internships and volunteer programmes are concerned with how to make things happen whilst acquiring some knowledge, so it is both learning knowledge and learning how to practice it." Student 4 maintained that the skills gained are necessary and he would "work for free in order to gain these skills." However, only students 2, 5 and 6 had heard of significant internships or programmes within rice milling or exportation and only student 6 had undertaken one. Due to the issues recognised in the previous chapter (4.4), internships were difficult for many students to undertake and therefore private sector intervention is necessary for these worthwhile placements to occur.

Student 9 stated that "lots of companies have come in and talked to us but not from rice millers or exporters." The internships and guest visits that occur most often to the students on both these courses were within other food industries. These other guest visits and internships' usefulness varied greatly but with foreign dominated sectors such as the garment sector or beverage companies like the American owned 'Coca-Cola Company' and the Vietnamese 'Tiger Beer' offering the majority of visits and internships to students, one

could argue that this effort could be better placed in a Cambodian industry such as rice milling and export due to its Cambodian dominated nature. Furthermore, students 9 and 10 mentioned both 'Tiger Beer' and 'Coca-Cola' by name as places where they would like to work after university, internships therefore appear to do a lot more than prepare students for work, they also work as advertisements for the companies.

4.5.2 Students recommendations for the government

The final section of questioning for the students related to the government. The students suggested improvements that they hoped the government would work on.

- Student 5: "good communication between government and young people especially students who study at university"
- Ensure that young people gain skills that are in line with the government's targets, i.e. to export one million tonnes of milled rice by the end of 2015 as detailed in Chapter 2.2.2.
- Improvements to the university laboratory to enable them to study with current machinery. Student 3: "the laboratory is not good enough for me to practice what I want; we need modern technology and equipment to practice on."
- The students expressed a desire for the government to provide experts to teach them and the lecturers as they "have low skills in many things" (student 9).
- The students wish for more help and information showing young people how to get jobs.
- More advertisements of relevant job opportunities within the university.
- Scholarships to be given to students enabling them to study and learn abroad.

Sub-research question 5)

What initiatives would students prospective to this industry, educational facilities and the government like to see implemented?

b) Universities

4.5.3 Interviews with faculty Deans

Two university faculties with courses related to rice milling and export were contacted for interviews, which facilitated the justification of the student interviews. The two faculties interviewed were the Royal University of Agriculture's 'agro-industry and food-science' faculty and the Institute of Technology's 'Food-science' faculty both situated in Phnom Penh. In order to disseminate the information gained from those interviews key findings from both interviews will be displayed subsequently beginning with the Royal University of Agriculture [RUA].

4.5.4 Royal University of Agriculture

Mr Kong Thong, the Dean at RUA believed the rice export industry to be a "huge and important industry" for Cambodia and therefore agreed youth involvement and development in this sector should be increased. He also understood that the university had many issues when it came to the mismatch of graduates skills and market demands as he argued, one of the main reasons the rice export industry isn't as developed as it is in Cambodia's neighbours Thailand or Vietnam, is because of "the lack of people trained in quality". He helped clarify many of the reasons for these issues and how they could be diminished.

Mr Kong Thong suggested that it was necessary to increase the amount of practical work at the university. Currently there is around 20% practical versus 80% theoretical teaching over both courses within the faculty and no practical work whatsoever during the module on rice milling; he explained that "ideally we would like it to be a 50-50 split". Secondly, the

university should improve its laboratory on campus, “We need the government to provide us with more funding so that we can develop our laboratory which will provide the students with more practical experience and improve the students’ capacity.” In addition he said that the lack of general knowledge about the industry was an issue, considering its importance to Cambodia’s future. None of the staff teaching within his faculty, including himself, have any previous experience within rice milling or exportation and so all they are able to teach the students is the knowledge contained in their textbooks, “[the faculty] is lacking quality teachers with experience in this industry. Our faculty is comprised of lecturers from other faculties that were put together to teach these courses, none of the teachers in this faculty actually have any personal experience in rice milling or exportation”. Mr Kong Thong continued by adding that specifically they “need experience in post-harvest in rice, technical milling and more.” The final issue he acknowledged was his fear that there would not be enough jobs for the graduates taking his course. He explained that last year there were 30 graduates, all of whom were able to find work, this year there are 50 students in the graduation year and next year there are going to be 100 students entering the top year. “There are more students joining the university every year and so in the coming years it will become more difficult for the students to get placements”, he thus anticipated increasing issues of youth unemployment unless job opportunities increase.

To overcome these issues Mr Kong Thong saw multiple options to alleviate the problems. Firstly, he saw value in company internships, “we do encourage students to take part in any extra training, if we know of internships we will send our students. Internships and volunteer programmes are very good for students to train more.” In his opinion, the main two reasons that internships aren’t utilised is that, the students do not have time to fulfil an internship as the students only have one month holiday between semesters. Furthermore, he says that many students cannot afford to pay for the travel to and from the internship locations and unfortunately with a tight budget the university cannot afford to subsidise the students either.

Another suggestion the Dean had to improve students’ skills and employment opportunities was to build connections with the private sector. Within the context of building connections he had more specific suggestions. If companies could help develop the laboratory with

better equipment, and equipment that taught appropriate skills that the market demands, then the student's skills and practical abilities would increase in areas of interest to the private sector. "If we were to have a small rice mill here on campus we could help develop the students and prepare them for rice processing in line with the governments goals". In addition, if the companies were to pay for the students travel expenses and publicise the internships better, the students would be able to accept them and gain skills directly from the exporters themselves whilst providing cheap labour for the sector.

Other ways of developing connections involve further guest talks and factory / office site visits and open days for the students. Furthermore, by doing the above and solidifying close connections between the private sector and the university, the companies could headhunt directly through the university, employing their top students. Mr Kong Thong sums this by stating "the university needs to advertise itself to these companies so that they know where they can gain motivated young workers, also they should advertise internships, volunteer programmes and jobs here that the students could apply for". Finally, he maintained that the most important reason for the companies to build connections and become involved was to inform the universities what is important for students to know so that the curriculum can improve and match more closely what the companies need. This would lessen the mismatch of skills between the youth and the labour market. Furthermore, as none of the teachers currently have any experience in the sector itself it is key to educate the professors about the industry so that they themselves can educate effectively.

To summate the Dean said "to reach the government's goal there are two key issues at the university; these are the lack of human resources and the lack of funding" and he believed that through better communication and connections with both the private sector and government this could be achieved.

Mr Kong Thong's ideas resemble that of employer's recommendations to educators in CAMFEBA's (2008) research as shown in figure 4.5. The top four selections in figure 4.4 are largely the same recommendations that Mr Kong Thong has stated. It is apparent that the mismatch between student's skills and labour market's demands is an enduring problem and the solutions have changed little in the six years succeeding that study.



Figure 4.4 Employers advice to educators. Source: CAMFEBA, 2008.

4.5.5 Summary Mr Kong Thong, the Dean at RUA:

- Believed the rice export industry to be a “huge and important industry” for Cambodia
- Youth involvement and development in this sector should be increased.
- His university had many issues with the mismatch of graduates skills and market demands partly because of “the lack of people trained in quality”
- Currently there is around 20% practical versus 80% theoretical teaching over both courses within the faculty and no practical work whatsoever during the module on rice milling; “ideally we would like it to be a 50-50 split”
- With government funding the university could improve its laboratory on campus “so that we can develop our laboratory which will provide the students with more practical experience and improve the students’ capacity.”
- The lack of general knowledge about the industry was an issue, considering its importance to Cambodia’s future.
- None of the staff teaching within his faculty, including himself, have any previous experience within rice milling or exportation and so all they are able to teach the students is the knowledge contained in their textbooks

- They specifically “need experience in post-harvest in rice, technical milling and more.”
- He fears that there would not be enough jobs for the graduates taking his course. There are more than 3 times as many students in the first year of the university faculty than in the third year.
- He saw value in company internships, “we do encourage students to take part in any extra training, if we know of internships we will send our students.”
- Students find it difficult to fulfil an internship due to travel, money and time issues.
- Budget restrictions mean that the university cannot afford to subsidise the students either.
- Connections with the private sector could develop university facilities, help improve student’s skills and practical abilities in areas of interest to the private sector and allow the companies to hire progressive graduates directly through the university.
- If the rice exporting companies were to pay for the students travel expenses and publicise the internships better, the students would be able to accept them and gain skills directly from the exporters themselves whilst providing cheap labour for the sector.
- The two key issues at the university are the lack of human resources and the lack of funding.

4.5.6 Institute of Technology Cambodia

Ms. Srey Malis the Dean of the Institute of Technology [ITC] agreed with much of the information that Mr Kong Thong had stated. Top of her issues was the laboratory equipment; she wanted better technology and facilities in her faculty’s laboratory in order for the degree to stay relevant. She identified that new equipment for the lab is necessary as “you know the technology is never the same, tomorrow it will be different so we always need more”. Like the Royal University of Agriculture, the Institute of Technology’s issues were having limited funds, an out of date laboratory and weak connections to the private sector – especially the rice sector. Where her findings differed was that her practical / theoretical course outline was a 45 / 55 split, which she was content with.

When asked where her students should work once graduated, Ms Srey Malis answered in a similar vein to the students of the RUA, “the graduates here are in food science and so they can apply their knowledge to food companies such as Coca-Cola, Tiger Beer, Anchor Beer or other food companies like LyLy and things like that”. The companies mentioned by her are the same companies that she said most students do internships for. As the interview developed and the questions became more focused on rice milling and export, she did add that “we would encourage ones [internships and jobs] in rice because not many people do it.” Rice milling is as applicable a sector as any of the aforementioned companies yet the companies within it are not well known by the universities. It could be reasonably assumed that the companies that put themselves forward to the universities, advertising jobs and internships in the right locations, become the most recognised and by extension, the most respected companies by graduates.

Ms Srey Malis continued that “we have no students that work in the rice sector at the moment but the students can do internships with them”. Her reason for the students not partaking in internships with these companies was that the exporters “are not organised at the moment”. Every student on the Food science course at ITC must complete a 1.5 month (3 month starting from next year) internship whilst studying, as she believes internships “are very useful for the students”. Although the university teaches skills applicable to rice milling and exportation only one student has ever done an internship within the sector. “He studied rice quality assurance. His internship was to measure the quality, to measure the size of the seeds, to analyse the protein, fibre, glucose and minerals quality”. She would encourage other students to take part in an internship within this sector; as she believes it to be important and the student who had previously completed an internship within the sector produced good work through it, “Cambodian people need knowledge of the rice sector, as you know in Cambodia we eat rice three times a day, and so it is very important to know about the rice quality.” Furthermore, with the governments goals Ms Srey Malis pointed out that “the economy of Cambodia is based on agriculture and the first product is rice so they [the government] are encouraging this sector”.

Ms Srey Malis had one concern about partnering with a relatively new sector. She said it was not uncommon for students to have difficulties when attempting to do internships with

some companies because the students go on internships related to quality analysis and the “students study food quality and safety based on a document but some companies do not work to this document”. This has resulted in companies not allowing students into their companies or students not being able to “meet the requirements of the university” with their research. The Dean was therefore apprehensive about the rice sector; “we would prefer to have a base connection, we are trying to have a base connection so that after the student graduates from this department and then they can apply directly to the company but we do not have this yet.”

The Dean of ITC concluded that she would like to develop connections with the rice sector, not just for internships but also for guest speakers, visits and more than anything, support. As with the Dean of RUA she believes that private sector connections can be mutually beneficial for all parties involved; “we would prefer to have some equipment to analyse some toxins in the rice, if we have good connections the students can have their internships at their company and they can also analyse the rice quality at our university”.

4.5.7 Summary, Ms. Srey Mali, the Dean at ITC:

- The Institute had limited funds, an out of date laboratory and weak connections to the private sectors – especially the rice sector.
- The course practical / theoretical outline was a 45 / 55 split, which she was content with but due to limited funds the laboratory is substandard.
- Most students who do internships would go to companies such as “Coca-Cola, Tiger Beer, Anchor Beer or other food companies like LyLy”
- She would encourage internships and jobs in rice but not many people from her institution do it.
- “We have no students that work in the rice sector at the moment...” exporters “are not organised at the moment”.
- Every student on the Food Science course at ITC must complete a 1.5 month (3 month starting from next year) internship whilst studying

- “Cambodian people need knowledge of the rice sector...it is very important to know about the rice quality.”
- The Dean would prefer to have a base connection with rice milling and exporting companies so that after a student graduates from this department they can apply directly to the company but this has not occurred yet.
- Private sector connections can be mutually beneficial for all parties involved especially if the university had equipment to analyse toxins in the rice, “if we have good connections the students can have their internships at their company and they can also analyse the rice quality at our university”.
- She would like to develop connections with the rice sector
 - For internships
 - Guest speakers
 - Site visits
 - Support

Sub-research question 5)

What initiatives would students prospective to this industry, educational facilities and the government like to see implemented?

c) The government

4.5.8 General Directorate of Agriculture

An interview was held with Dr. Hean Vanhan, the Director General of the General Directorate of Agriculture and Chief of Secretariat of One Window Service for Rice Export Formality (a working group on rice that works in conjunction with the Royal Government and the private sector). Dr. Vanhan stated the rice export sector was key to development throughout Cambodia and is one of the government’s main policy areas, maintaining that the government is focusing on four main activities within the rice value chain to develop this sector. The four policy areas and the government’s aims within them are briefly outlined below:

- The increase of paddy production.
 - By increased technology and cultivation area
- The facilitation of rice collection and processing.
 - By using better drying and milling facilities
 - By expanding rice milling plants through low cost government loans
 - Encouraging contract farming between the millers / exporters and farmers
- Rice export facilitation.
 - Through working group meetings between the rice exporters and the government
- Expanding Cambodia's rice market.
 - Advertising Cambodia abroad – increasing worldwide brand recognition

Although human resource development was not mentioned outright as a central issue in the development of this industry, this is not surprising as the answers Dr Vanhan gave are the same as the Government's 'National Strategic Development Plans' (2010). These plans outline the four areas above as being necessary for development of the rice exportation sector. This however, does not mean human capital development is of little significance. Once prompted Dr. Vanhan did have thoughts on this issue. He agreed that youth employment and human resource development are issues that deserve attention. Additionally, to be able to develop youth's human capital in this sector he agreed that private sector involvement within the universities would be advantageous, including but not limited to, the use of guest speakers, open days, workplace visits, internships and joint curriculum development: "Yes, guest speakers and visits to the factory are very good. I always welcome these things." Further to this he believed that practical experience within the schools and universities should increase; "I think the students in the university need practical work, and if they can find the time to visit the working facility they should." He continued by saying that graduates won't understand how to develop the industry unless they had practical experience at school, "if they do not have any practical work at the university they just get the lecture from the book and the internet, but when they finish and they go to get work and they don't have practical experience they will not understand the situation."

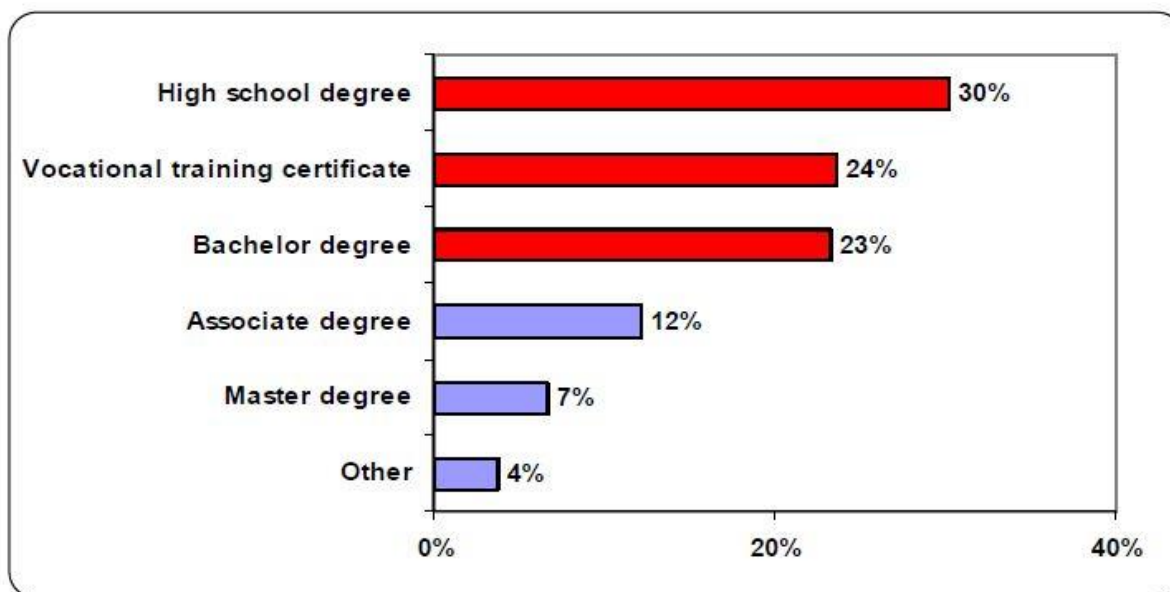


Figure 4.5. Minimum levels of education employers across all sectors believe are important for employment. Source: CAMFEBA, 2008.

The Director General agreed that practical work within universities should be expanded however, he appeared to be out of touch in many ways with what all other interviewees had suggested. Although he agreed that practical experience in degrees should increase and that private sector involvement should grow he gave no indication of how to progress it. In addition, he saw little value in vocational degrees, stating that all capable people should go through university and that vocational degrees “are for uneducated people, if you are not smart you should do vocational work”. This point is not only against all other interviewees opinions but also contradictory to multiple studies produced on the topic. Figure 4.5 shows the minimum level of education employers across all sectors consider important for employment (CAMFEBA, 2008). Although this graph is not strictly based on agricultural businesses, it does show that in this particular study employers found vocational training certificates more important than university degrees. Furthermore, the UN (2009: 49) found that “vocational training is most effective for higher earners than lower earners illustrating the complementarity of vocational and academic skills”. And that “vocational training programmes for youth have also been proven to be more cost effective when training is targeted and tailored to the needs of the local labour markets” (ILO, 2007: 47). Furthermore, it has been proven that young people often lack the two of the three important components of human capital, generic and job-specific work experience; it is

essential that educated youngsters acquire firm-specific knowledge by working in order to enable their “schooling” human capital to become productive (Carmeci and Mauro, 2003).

Therefore Dr. Vanhan agreed upon the importance of the export industry but did not agree that more people should go into courses that develop skills for this industry and appeared to not see much value in developing these university courses or the human resources of Cambodian youth. Moreover, when asked if youth unemployment was an issue in Cambodia he maintained that “there is an issue with people being lazy” and identified that there was an issue with young workers migrating to other countries “disrupting our [Cambodia’s] labour” but yet again gave no solution beyond expanding the industry.

Perhaps this interview uncovers the most significant finding, in that dialogue between the stakeholders of the rice export sector breaks down. Whereas all other interviewees stressed the importance of human resource issues within the rice export sector and suggested many solutions to these matters the government, as represented by the Director General, does not see this as a major concern and put forward no tailored resolutions to this particular issue. The main discussion that occurs within this sector is within the working groups set up between rice exporters and the Government, the ‘Federation of Cambodian Rice Exporters’, the ‘Cambodian Rice Export Association’ and the ‘Alliance of Rice Producers and Exporters of Cambodia’. Although some members of these groups overlap, four groups, largely working towards the same goals would appear to be inefficient and excessive, and more importantly, none of these groups contain educational facilities.

Sub-research question 6)

What policy recommendations can be made to increase involvement and develop human capital in this industry?

Throughout the interviews conducted a significant number of issues and potential solutions arose. This chapter’s aim is to disseminate this information and attempt to suggest feasible recommendations that would support the development of Cambodian youth within the rice export sector, whilst providing mutual benefits for all involved. In order to accomplish that

goal the table below identifies all the issues raised and the potential solutions that have been alluded to in the previous chapters.

Issues	Possible solutions	Actors involved
EXPORTERS		
Students mismatch in skills		
Graduates have no experience in things they should know	Exporters build connections with the educational facilities	Exporters, Educational Facilities
	Exporters increase internships	Exporters
	Exporters inform the educational facilities what the labour market needs	Exporters, Educational Facilities
Worker loyalty / quick turnover		
Workers don't stay for long after being trained	Exporters hire through connections made with the educational facilities and internships	Exporters, Educational Facilities
	Develop youth skills so that if workers leave there is less impact	Exporters, Educational Facilities, Government
STUDENTS		
The quality and applicability of their education		
Not enough practical work in degree courses	Change curriculum to have increased practical work	Educational Facilities
	Increase university funding to develop the laboratories and subsidise internships and trips	Exporters, Government
	Increase internships through publicity	Exporters, Educational Facilities
Their education is not what the market demands	Develop curriculum through partnerships with the private sector	Exporters, Educational Facilities
	Increase practical work, internships etc.	Exporters, Educational Facilities
The student's accessibility to the labour market		
Not enough publicity regarding the rice export industry	Advertise jobs within the educational facilities	Exporters, Educational Facilities
Students don't know where to look for jobs or internships	Build connections and advertise jobs within the educational facilities	Exporters, Educational Facilities
Not enough time to complete internships	Change curriculum to allow longer for internships or make them part of the course	Educational Facilities
Too far away or too expensive to	Subsidise internships	Exporters,

travel to internships		Educational Facilities, Government
LECTURERS		
The lack of human resources		
Lecturers don't have experience in rice milling / exportation	Develop curriculum through partnerships with the private sector	Exporters, Educational Facilities
Lecturers don't know what skills are important for rice millers / exporters	Increase guest visits and factory visits	Exporters, Educational Facilities
The lack of funding		
The laboratories and machinery are sub-standard	Provide the Educational facilities with more funding or loan them equipment	Exporters, Government

Table 4.5 Issues identified by RUA students, educational facility faculty members and Cambodian rice exporting companies and the actors necessary for their solution.

Table 4.5 contains the issues raised by the different stakeholders interviewed. The right side of this table lists which stakeholders would be required to most effectively combat these issues. Upon first glance it is evident that the 3 stakeholders; the government, the private sector and educational facilities, would need to cooperate to most efficiently diminish these issues. The following chapters will be organised to follow the layout of the table above, therefore discussing the first issue, possible solutions and the actors involved before moving onto the second and so on. Previously researched literature will be referred to throughout this section.

4.6.1 Students' mismatch in skills

It became evident that there is a mismatch between what students are taught in their education and what is necessary for the Cambodian rice exporting labour market. It is unproductive for students to 'learn' skills at university and then not be able to apply them when they enter the labour market. A few solutions became apparent during the research project. There is a need for social dialogue to occur between the educational facilities and the private sector. If the educational facilities know what skills are most necessary to attain rewarding employment in this industry they would endeavour to teach these skills to their students. To achieve this social dialogue it is this researches proposal to create a social platform, similar to the 'working group', 'association' and 'federation' already in place,

however with the addition of educational facilities. It is critical that educational facilities are kept informed and conversant regarding the government and private sector's development plans. Furthermore, cohesion could be augmented if a new group was not created but if educational facilities were included in one of the existing groups, as four groups ('Federation of Cambodian Rice Exporters', 'Cambodian Rice Export Association', 'Alliance of Rice Producers and Exporters of Cambodia' and the 'One Window Service for Rice Export Formality') working towards the same goals is less likely to be effective and efficient.

It is not just communication that should be increased; the private sector should look to take an active part in the training and education of the upcoming working generations. It is a suggestion of this study that the companies should increase all connections with the facilities through increased factory visits, guest talks and internships. By taking an active part in human capital building the exporters can ensure the discussed goals of the social platform are carried out and moreover, through internships the exporters can directly groom future generations into the workers that they would want. Using the social platform, as a solution to students' skill mismatch is likely to gain the most effective results, however, resolving many of the other issues will also contribute to solving this particular matter but to a lesser degree.

4.6.2 Worker loyalty and quick worker turnover

One of the key issues the rice exporters had with youth was their lack of loyalty and their quick turnover rate. The current solution employed by the exporters is to hire through social and family networks. With the growth of this industry and its increasing reliance on skilled workers this is not a feasible long-term solution. This study has two suggestions; make the workers more loyal to their employer or lessen the impact of workers leaving. By building connections with the students whilst they study, through internships, visits and talks and then hiring them straight from university the students should feel more allegiance to the company as they have built a connection over some time. By increasing the bonds between the new workers and the company the turnover rate should decrease. Furthermore, by increasing the students' abilities and skill levels when they are at university or technical school, there should be less of a negative impact should they decide to leave the company

as there will be a more qualified supply of workers ready to take their place. This is preferable rather than having to train a new worker from the start.

4.6.3 The quality and applicability of the students' education

In order to improve the quality of the students' education a revised curriculum to allow longer holidays and encourage students to undertake internships in industry or create a module within the students' studies that requires an internship - as ITC currently does. Internships would increase the amount of practical experience a student has, better preparing them for work whilst building brand loyalty to the companies and providing free word of mouth publicity for the companies. It has been made clear by the students, lecturers and exporters that a significant percentage of the students' education should be practical, in addition to being theoretical, as Mr Kong Thong maintained, "ideally we would like it to be a 50-50 split". Putting less emphasis on theoretical, text-book and lecture based learning, and more importance on alternative and practical teaching methods would encourage problem solving and critical thinking. Building trips and internships into the curriculum and asking the students to create analytical reports or presentations on what they did at the company would further advance the students skills.

Additional funding for the educational facilities laboratories or the gifting of post-harvesting and food testing lab equipment would allow the lecturers to teach the students practical skills more effectively. Additional funding could also be used to subsidise students trips to factories and internships as it was identified that money is a great concern for many students and institutions with limited budgets. The education the students receive will become more applicable to market demands through similar methods as improving its quality, – through increased practical work, with better equipment and information in topics that the labour market demands.

4.6.4 Students accessibility to the labour market

There are multiple factors that have blocked students' accessibility to the rice milling and export labour market. Firstly, considering the importance of this industry to Cambodia it is

still relatively unknown when compared to other food industries and others, such as the garment sector. Secondly, among the students interviewed who do have knowledge and interest in this industry, there is a lack of information as to where to look for work in this labour market. The companies need to make themselves better known to Cambodian youth. The quickest, cheapest and most effective way for these companies to publicise themselves to interested youth would be to market themselves in the relevant faculties of technical schools and universities. This approach would have negligible costs and would target the youth most probable to have an interest in working for them. Partnering this approach with further connections to the educational facilities would create further supply of young trained workers. Furthermore, once known to the schools, universities and students the companies could head-hunt the best and brightest students directly through the educational institutions.

Internships would increase students' interests in the labour market whilst also allowing the companies to hire interns who they believe are worthwhile. In order for many of the students to complete internships they would require their travel, food and potentially their accommodation to be subsidised. This would necessitate a monetary cost for the government or private companies. This cost however, should be inconsequential for the companies once the interns' productivity is taken into account as they would be working for a price much lower than a full time worker, although at a less productive capacity than a trained full time worker. The government could also provide funding for this endeavour.

4.6.5 The lack of human resources in educational facilities

During the interviews with the head of faculty's at RUA and ITC, it was made evident that there is a lack of experience with the rice sector amongst the lecturers teaching in subjects related to post-harvest processes in rice. This has two impacts; firstly, the lecturers struggle to know what the most important aspects of the subject are. It is established that this is more of an issue at RUA as there is a module dedicated directly to post harvest processes in rice, whereas at ITC the course is related to rice but not specifically dedicated to it. The second impact is that when the lecturers are teaching the students they can only teach them what is written in textbooks as the teachers have no familiarity with the topic

themselves, this combined with the absence of practical work would likely make the education of less consequence to the labour market.

Solving these two issues without hiring new lecturers necessitates external help from the private sector. Once again by building connections with companies that entail factory visits, guest talks and by tailoring of the curriculum to match the labour markets demands, the curriculum will become more interesting and produce graduates with better skills that are applicable to the labour market.

4.6.6 Lack of funding in educational facilities

The dearth in funding provided to the educational facilities causes many of the above-mentioned issues. This section focuses on the apparent sub-standard state of the university laboratories. The head of faculty at both ITC and RUA commented on their lack of funding and the poor state of their out-of-date machinery and testing equipment. There are two stakeholders who could help intervene and develop the institutions facilities. The government could assign more funding from their budget to develop the laboratories. The rice milling and exporting companies could also contribute through donating older or unused machinery and laboratory equipment, as the educational facilities currently have almost no equipment, even older machines would be an improvement, furthermore as Mrs Srey Malis explained “technology is never the same, tomorrow it will be different so we always need more”. If companies help develop the educational facilities laboratories through funding or the lending of suitable equipment that teach applicable labour market skills, the student’s skill level and practical abilities would increase in areas of interest to the private sector. Ideally the various private sector companies and government would cooperate on this issue, if through their working group or association an agreement could be made as to which items are most important, money could be pooled and items donated to the facilities.

4.7.1 Comparison with theoretical framework

The findings of this research project are comparable to two other studies. The 'ILO policy brief on youth employment in Cambodia' (ILO, 2007) and the youth and employment survey referenced specifically in the literature review; 'Bridging the Gap' (CAMFEBA, 2008). These studies are out-dated by seven years and six years respectively and cover broad sectors and topics yet their findings are remarkably similar to this study.

The 'policy brief on youth employment in Cambodia' (ILO, 2007) concluded that there was a significant skills mismatch between what Cambodian youth were taught and what the labour market demanded which was resulting in 'continuing poor youth employability' (ILO, 2007: 64). Furthermore, that study called for labour market attention to be paid to:

- Agricultural development
- Improving locally available jobs for youth that focus on SME development and agro-industry
- Skills promotion
- More collaborative and active implementation among stakeholders (the Government, private sector and development agencies) is required in areas that promote decent jobs and equal access for Cambodian youth.

All these points are closely tied to the findings of this study. The ILO also appealed for government policy to "foster institutional arrangements through which government ministries, workers and training institutions can respond effectively to changing skills and training needs" (2007: 64), the social platform that this thesis suggests would function in this regard. The study concludes that "enhancing Cambodia's human resources, particularly youth, is crucial for the country's economic future" (2007:64).

'Bridging the Gap' (CAMFEBA, 2008) established that the majority of employers (77 per cent) said that the main attribute they look for amongst youth was 'the right attitude' corroborated by this study as the most dominant trait looked for in youth amongst the Rice exporters was a 'good attitude'. Furthermore, in 'Bridging the Gap' (CAMFEBA, 2008) it was found that 93% of employed youth interviewed believed that internships, volunteer, or part

time jobs were 'very helpful' for them to acquire a job (CAMFEBA, 2008:60). Only 6% viewed these as being either 'not helpful at all' or of 'little help'. This thesis found that all students believed in the usefulness of internships for job hunting. The CAMFEBA found that "building experience via internship, volunteer or part time work during study is also valuable as this kind of work will equip youth with more experience and with more understanding and links between their study and the real workplace" (CAMFEBA, 2008: 61). The study therefore decides that students "should manage their time to get this experience even though most of those kinds of jobs are not well-paid or not paid at all" (CAMFEBA, 2008:61).

This paper also stresses the importance of the agricultural sector explaining that "there is demand for workers with skills in agriculture and agri-business but despite its potential as an employment source for youth, agriculture does not have a good image in the society compared to business, management and banking...youth need to be aware that there are attractive careers in agriculture besides simple farming" (CAMFEBA, 2008: 65). This is especially relevant for the rice exportation sector. Admittedly this sector has had increased publicity since the writing of CAMFEBA's paper due to the government's goals, however, there is still an absence of publicity and knowledge of this industry. The deficiency in knowledge of worthwhile careers is elucidated by the statistic that only 2% of students studying in university are in courses related to agriculture (CAMFEBA, 2008).

Most significantly this research agrees with the CAMFEBA (2008) study concluding that:

- Education curricula needs to respond to the job market demand as much as possible
- Applied research should be provided in each field of study
- Guest speakers and practical work should increase
- Students should have a counselling unit that can provide job hunting information
- The private sector should develop closer relationships with education institutions

The bullet points above correlate strongly with the findings of this thesis. The ILO's (2008) study suggests that by improving 'social dialogue between stakeholders' it will lead to "education and training outcomes that are more responsive to market demand, as well as improved access for youth to employment opportunities" (CAMFEBA, 2008: 107).

The findings of these other studies are proof that the issues of youth skill mismatch in Cambodia are not new and moreover, are not industry specific. This has been a prevailing issue in excess of seven years. It is a worrying sign that this thesis' research can be conducted for an industry that is key to Cambodia's development strategy and yet its outcomes closely resemble the conclusions of studies produced years apart on different scales with dissimilar sectors.

4.7.2 Policy Recommendation

The main skill mismatch or human capital development issue within the rice exportation industry is the lack of communication between stakeholders. Every stakeholder in this industry has the same goals; to increase productivity and develop the industry. However, doing so through increased skills and levels of employment is not a main priority for the government and is secondary in the eyes of the exporters, although due to its cost and ease, should take precedence. By evaluating the various issues mentioned throughout it is evident that the most effective way with which to develop educated Cambodian youth's skills is through social dialogue between stakeholders.

In table 4.5 issues within the industry, their solutions and the stakeholders necessary to achieve these solutions were listed. Every solution listed, needed cooperation between at least two of the stakeholders. Predominantly this is because every stakeholder has a different function in the eyes of Cambodian youth. The government creates goals and is in charge of national development and therefore the direction in which the country is headed. The government thus pushes the youth in the way of particular industries important to Cambodia, in this case the rice exportation industry. The private sector controls production and the labour market, and thus hires workers and creates products. Hence the private sector knows what the important skills are and what the industry needs in terms of labour and capital. The educational facilities administer training and education of the youth; consequently they are the most important connector in realising both the government's and labour markets goals.

The hierarchy of these connections therefore should be government -> rice exporters -> educational facilities. This should work as follows: the government sets goals to support the rice exporters and informs the educational facilities of their importance, the rice exporters communicate to the educational facilities what the market demands of the students once graduated and the facilities then train the students whilst being supported by the greater money and knowledge of the other two stakeholders in the hierarchy. These linkages in the rice export industry in Cambodia do not function to their full capacity. The government has told the nation of the importance of this industry and set goals, it has also provided many benefits to the private sector. The government however, has not supported the development of youth skills in this sector. The companies themselves have improved productivity and their capacity but again have lagged behind in supporting the development of their human capital.

4.7.3 Summary of the policy recommendation

In order for Cambodian rice exporting companies to play a significant role in the sustainable employment of upcoming generations of educated Cambodians, there is a need for a social platform through which the rice exporting companies, educators and relevant government workers can discuss and implement:

- Changes to be made to the educational curriculum of technical schools and universities:
 - For the students to learn skills that are important for the labour market.
 - For more practical work to be completed in the courses.
 - To allow for work experience in-between semesters.
- Active private sector involvement through:
 - Guest lectures.
 - Workplace visits.
 - Increased internships and job advertisements.
- Increased funding to educational facilities for:
 - Subsidised internships and trips.
 - Developing on campus facilities with better technology and laboratories.

5. CONCLUSIONS

The rice export sector in Cambodia is proving to be an important employer of Cambodian youth and the sector can continue to absorb workers as it increases in size which is especially significant as: “the single most important issue confronting youth in Cambodia today is employment.” (UN, 2009: 3) The Dean from the Royal University of Agriculture concurs and anticipates increasing issues of youth unemployment in the future unless job opportunities increase. However, unemployment is a more western concept since many people in underprivileged countries cannot afford to be unemployed hence the low percentages of unemployment as people create shadow opportunities in the informal sector; which may explain the seeming confidence of the student who declared that “a student with an ability in language and who has skills can find work easily...” Another commented that “if you have no knowledge then you cannot find a job but if you have knowledge it is very easy.” However, their expectations that a university education will make them more employable and improve their prospects are increasing so a student’s disappointment with the university laboratory not being “good enough” for him to practice on, wishing for “more modern technology and equipment” is understandable. Moreover, present-day students, having a less intimate knowledge of the Cambodian genocide (1975 – 1979) which killed a large percentage of educated Cambodians (UN, 2009), are less forgiving of sub-standard facilities, opportunities to procure internships and any short-fall in teaching standards. Educational institutions need to provide instruction which is responsive to the market demand, ensuring that the curriculum is up to date, improving the quality of lecturers, updating and expanding facilities, increasing applied research and internships in the field, having guest speakers and evening up the practical and theoretical split, to be more engaging whilst developing actual skills to avoid post-graduates with a mismatch in labour skills and thus to make them more employable.

Although human resource development is not the only way in which the rice export sector can develop, it is however, mutually beneficial for all stakeholders and thus should be worked on simultaneously with other sector developments. For both the sector and the workers involved in it to flourish there are some improvements to be made. It was made evident by the exporters that there is a skills gap for young educated Cambodians.

Challenges in finding work come from not only the labour market but from the education system from which these students emerge. To tackle the issues of youth employment in this sector all stakeholders; the employers, educational facilities and the government, must act for “even if today there are not the jobs for an educated population, without education the future for both youth and the nation itself is not bright” (ILO, 2007:52).

This research concurs with previous studies in Cambodia emphasising the potential benefits of internships for both the companies and youth involved (CAMFEBA, 2008; ILO, 2009; OECD, 2013) therefore the rice exportation sector should create closer links with youth and educational facilities through better publicising of available jobs, internships and other work in relevant school and university departments, by increasing the number of internships on offer to students, by contributing to guest talks, by providing office and factory open days and through joint development of the technical schools and universities curriculums.

The Director General of the General Directorate of Agriculture and Chief of Secretariat of One Window Service for Rice Export, when interviewed on behalf of the Cambodian Government, explained the ‘National Strategic Development Plans’ (2009) and outlined the four areas as being necessary for the development of the rice exportation sector. He agreed that youth employment and human resource development are issues that deserve attention stating that private sector involvement within the universities would be advantageous, for example, the use of guest speakers, open days, workplace visits, internships and joint curriculum development adding that “students in the university need practical work, and if they can find the time to visit the working facility they should.” However, although he agreed that practical experience in degrees should expand and that private sector involvement should increase, there was no suggestion regarding how to implement this, for example with monetary support. In addition, although vocational training programmes for youth have been proven to be “more cost effective when training is targeted and tailored to the needs of the local labour markets” (ILO, 2007: 47) he rather doubted the usefulness of vocational training. Carmeci and Mauro, 2003 are of the opinion that the young frequently lack two of the three important components of human capital, generic and job-specific work experience, making it vital that educated youngsters acquire firm-specific knowledge by working, in order to enable their “schooling” human capital to become productive.

It is obvious that the recommendations posed by this thesis can only work if all parties involved are fully committed to the process, and although the issue of student skill mismatch is not a new one in Cambodia; the same solutions can be recommended now as six years ago in the CAMFEBA, 2008 study. There is however, confidence in the improvement of this situation. Due to the enthusiasm of the various stakeholders to develop students' skills, the rate at which the rice exporting sector has been growing and the importance that has been placed on this industry by the government, there is hope that in another seven years a study conducted on this topic would not produce similar outcomes.

Implications for this study go further than the rice export sector and branch into other technical industries. Students studying agro-industry and food science have degrees applicable to most food and beverage companies. The students and university Dean's expressed that it was not just input from the rice sector that was missing but from most sectors for which the courses apply and research from the ILO (2007) and CAMFEBA (2008) studies are evidence of this. Therefore, it may well be worthwhile for similar sectors to take notice and implement comparable ideas in their own industries.

6. REFERENCES

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APPENDIX

APPENDIX I

Exporter 6 Interview

1.1 Company name

1.2 Nationality

Cambodian

1.3 Year founded

1994

1.4 Position in company

General Manager

2.1 Which areas of the rice value chain does your company take part in?

The company participates in the following value chain activities: Inputs, milling, quality, packaging / branding, selling.

Growing to harvesting is contract farming so not direct.

Transport is contracted to others

2.2 Excluding the rice sector are there any other activities that your company is involved in and what are they?

Another sister company imports fertilizers from Thailand.

3.1 Approximately what is the average income for a unskilled, skilled and management worker?

Unskilled – they get paid depending on how much they work. They get paid 5000 riel per tonne loaded. They only work 1 or 2 days a week though. It depends on the export volume.

Skilled – 160 dollars per month and we provide 3 meals a day.

3.2 How many workers do you have in each category and what percentage are youth?

We have 70 unskilled workers and more than 75% are youth

We have 67 skilled workers and about 40-45% are youth

We have 30 senior staff and about 15% are youth

At the factory all of them are trained in quality control (QC) – for QC we invite international inspection companies to train us at QC and fumigation for operators we have our own team train them.

4.1 What are the advantages of hiring youth?

For unskilled mostly we use manpower to carry the rice, we mostly hire young people because they are strong.

4.2 What are the disadvantages of hiring youth?

Normally we don't think about young or old people, we think about duty, if they can operate well we consider this not consider about age.

4.3 How else do you find youth and adult workers differ?

At our mill for our old people, they are higher up in management, team leader, supervisor or something like this.

4.4 Do you think it is important to have young people working at the company and why?

Yes but it depends on their work. When we hire young people we focus on their experience, to see what they can do what type of job position we are not really care about their age. It is important that they are more than 18.

4.5 Which methods do you find most useful when searching for new employees?

Normally we advertise online or through newspapers.

We have a lot of internships but they don't interest because normally they work at Battambang far from Phnom Penh, they don't want.

Normally we ask our staff if they have relatives who can be suitable for an accountant or sale assistant and if they have we ask them to come have an interview with us and if they

meet our requirement we will hire them for 6 months and if they pass 6 months then they can continue. But for high management, leader or supervisor we will use newspaper or internet or an announcement like this.

4.7 What are the three most important attributes for youth to have?

Unskilled – attitude, decision, time management

Skilled – attitude, high school, experience

Senior – university, communication, leadership

5.1 If you needed an employee to fill a new position how would you close this gap?

Unskilled – external training, don't want to train unskilled, not much training necessary

Skilled – in house, normally they practice in the country with our machines so it's good for them to be trained by us

Senior staff – overseas some in house, some skills we do in house as they advance through the company they learn these skills. A lot of the skills they need though they must learn overseas as we are a multinational company that exports overseas they must know how these countries work and so they do some training overseas.

5.2 Does your company offer any internships?

Yes

5.2.2 What do these entail?

University students to complete their studies must write a thesis, they can come and do some training with us; first they come to the office to understand their role. The second step if they are interested, they can go to the rice mill for 1 or two weeks, and people teach them during the working hours.

5.2.4 Are the internships paid?

No they don't get paid but they get food and training.

5.2.5 How successful do you consider the internships?

Their purpose is usually only to write their thesis and after they finish they go back to university. More than 90% get high scores on their work. When they work they find out the good points of our company.

5.3 Do you have an affiliation with any schools or universities?

The agricultural university, the bosses from this exporter go and give talks to the students.

5.4 Do you have any policies or initiatives that are specifically aimed at the employment of youth?

Normally only QC and from other rice mills when they want to know and learn the QC, how to check and fumigate the rice, then they send out people to our factory to serve for 1 week and we work on them. Yes we do training for other companies because we are a big rice exporter we have also bought rice from the smaller rice mills so they must know how to check their paddy and their rice. Even when we buy our rice from them we send our QC to check but they have to know how to check themselves.

We used to hire international surveyor to check us on rice turnout and fumigation.

5.5 What would you consider doing to involve more youth in your company?

No plans to further youth involvement.

5.6 To what extent does the Cambodian government support you in increasing youth employment in the rice export sector?

Right now the government is supporting contract farming, they study why most of rice exporters of Cambodia fail to do contract farming, only a little that get success, now they find they can have a rice association and farmers associations, with the head of the commune join together and can discuss what the exporters want to buy for the farmer and what the farmers are responsible for. Like we supply good fertilizer and good seed and then we buy off them for the market price, but they are responsible for planting growing and harvesting themselves when they harvest, they sell the seed to us at the market price, if the quality is grade A we buy at grade A. The head of the commune is responsible and the government SNEC (supreme national economic council) – they support the technical side,

how to grow, how to take care of the rice and can get high yield. And the government keep on improving the bureaucracy, now we just send all our applying documents to one place and get all the information back from one place. And they are reducing the under the table money a little bit.

5.9 What do you believe the government could do to support you in increasing youth employment in the rice export sector?

They should have schools or universities on rice, right now the schools and universities don't have anything on quality control on rice. They don't have, even at the university they study in general and nothing specific to do with rice.

6.1 How do you see the role of youth changing within your company in the next 5 years?

They stand a good chance to be promoted within the company, get more money and bigger positions if they stay with us.

6.2 How have the following factors changed between 2010 and 2013 and how do you expect them to change by 2016?

2010-2013

Rice production - strongly increased, turnover in dollars – increased, unskilled workers – decrease, skilled workers – increased, senior staff – increased, percentage of youth – increased.

2014-2016

Rice production - strongly increased, turnover in dollars - strongly increase, unskilled workers – decrease, skilled workers – increase, senior staff – increase, percentage of youth – increase.

APPENDIX II***Email to exporters***

Dear Sir,

I am conducting a study on behalf of Indochina Research and Utrecht University in the Netherlands. The aim is to complete an inventory of the rice export sector, how it is organized and how it is changing. My research is especially concerned with how young people can be employable in rice exporter companies and what opportunities are provided for them. Therefore, after the basic inventory questions I am largely asking things such as "what are the advantages / disadvantages of hiring youths", "what are the most important skills for young people to have" and so forth.

I am very interested in your thoughts with regards to this. I would very much like to meet with someone for about 40 minutes for an interview. The results will be kept anonymous and used only as part of my research. This research could be of use to your company's future development and thus once finished I will send a PDF copy of the research to your company.

If someone would be prepared to meet with me it would be much appreciated.

Yours sincerely,

Todd Hunkin