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Faculty of Tropical AgriSciences



**Faculty of Tropical
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Youth And Work in Agriculture: The Case Study in Bangladesh

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Declaration

I hereby declare that I have done this thesis entitled "**Youth and work in agriculture: the case study in Bangladesh**" independently, all texts in this thesis are original, and all the sources have been quoted and acknowledged by means of complete references and according to Citation rules of the FTA.

In Prague August 2021

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Abdullah Al Shafi

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Abstract

In recent times in Bangladesh, there has been a massive change in career choices among the educated youth. Nowadays, the young generation is not any more interested in choosing agriculture as their preferred profession. Even students who have earned a degree in an agricultural subject are actively pursuing other career choices than agricultural work. Therefore, this study report is designed to address the definitive factors that influence the intention to work in agriculture among the students of Sher-e-Bangla Agricultural University, Bangladesh.

A quantitative questionnaire was developed to ask the main questions of the study. A survey was conducted in 2020. The convenience sampling method was used to identify and select the respondents from four faculties (Faculty of Fisheries Aqua & MS, Faculty of Agribusiness, Faculty of Agriculture, and Seed Technology) in Sher-e-Bangla Agricultural University, Bangladesh. The sample size of the study consists of 210 respondents. The binary logistic regression model and descriptive statistics were used for analysis. The binary logistic regression model revealed four (04) significant and independent variables (Attraction to the rural way of living, the perceived prestige of agriculture, friends influence to study agriculture and if the respondents have farming experience from training).

These variables directly contributed to the model extensively. The strongest variable among the three is an attraction to the rural way of living. This variable could increase the probability of choosing to work in agriculture. Other than these variables, all the other variables are insignificant and invalid, considering the factors that influence the intention to work in agriculture.

Although youth find agriculture as hard and physical work, they did show their deepest interest to work in agriculture in future those who already have some related training. More agriculture-related campaigns in youth will defiantly attract them in the future.

Keywords: Youth, Bangladesh. Prestige. Agriculture, Influence.

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List of Abbreviations Used in The Thesis:

ILO: International Labor Organization

FAO: Food & Agriculture Organization

GDP: Gross Domestic Product

BBS: Bangladesh Bureau of Statistics

USSR: Union of Soviet Socialist Republics

OP: Open Question

1.0 Introduction and Literature Review

1.1 Introduction

Most of the countries have a declining rate of agricultural employment, with the male agricultural employment ratio has decreased massively. This has happened due to the young generation's different choice of career in other sectors with high-salaried jobs (ILO 2011). Bangladesh is an agricultural country with a strong tradition and heritage for doing agricultural work in abundance. The agricultural industry contributes a large number to the national economy and GDP. Agricultural activities have contributed around 20% of the total GDP (Gross Domestic Product) in the country. Additionally, 44% of the total labor force is working in the agricultural sector (BB, 2010). Out of the broad agricultural sector, the sub-sectors (crops, livestock, forestry, and fisheries) contribute around 11.34%, 2.66%, and 4.49%, respectively (BBS, 2010). Besides, agriculture is responsible for ensuring the food sufficiency level in Bangladesh (Rahman & Parvin 2009)

As a result, this industry has been creating many employment opportunities with enhancement in the living standards for the people as well. There has been continuous reform in the agriculture sector with policies and dialogues that have been made and implemented in the past years (Mahmud 2008; GoB 2009). The policy recommendations are – The National Agriculture Extension Policy; National Seed Policy; Irrigation and Water Management Policy; Integrated Pest Management Policy; and the Agricultural/ Rural Credit Policy. Among the policy interventions, the Agricultural/ Rural Credit Policy is the most significant policy for developing the agricultural sector in Bangladesh, especially the volume of agricultural production. Rural credit policy is significant for increasing the total productivity of the agricultural sector. If the credit facility is on time with ease of access to funds, the farmers, including the margin amount, could buy the required inputs for producing the highest quality agricultural products. (Abedullah et al. 2009; Saboor et al. 2009)

However, the young traditionally is not attracted to the agricultural sector, and retaining them is a tough call; ultimately, it is a global challenge for everyone involved (Ahaibwe et al. 2013). In developing countries like Bangladesh, the agricultural sector relies on the capacity of the labor force to produce crops (Reymond et al. 2004). As young people have

a reluctance in agricultural activity, they assume that doing agricultural work would be doing a second-class job with low pay (Gidakou 1999). The unemployment level in most countries, including Bangladesh, is high. The young people are not interested in agricultural work, contributing to the overall unemployment level significantly. Therefore, young people have a lot on their plate to develop and reform the rural economy by engaging in agricultural work (Pelzom et al. 2017). This study report will analyze "the critical aspects influencing the decision to choose agriculture as a career" and provide study recommendations and suggestions to improve the current scenario in Bangladesh.

1.2. Literature Review

1.2.1. Occupation and Occupational Prestige

According to Zhan (2015), choosing a specific occupation is a rudimentary activity of our economic life. Several reports have suggested the scope of earning influences the decision-making phase regarding choices of occupation. Since the decision is an informed one, our occupational preferences are income-sensitive (Zhan 2015).

Additionally, Singer (1974) stated the potential level of salary drives the entire job selection process. Males, compared to females, are more interested in the level of salary. On the contrary, females actively pursue self-development opportunities and want due appreciation for the effort they put into the work.

Treiman (1976) emphasized the significance of occupation as a key metric for determining a person's social status. Whereas Blank et al.(2015) highlighted a specific occupation could congregate workers having the same personality traits. Therefore, a chosen occupation can answer different questions such as – who they are or what they want to do, or for whom they belong, in due course; a selected job could contribute to the self-assessment of an individual. Furthermore, self-assessment is a significant aspect of creating personal identity. People can connect with a chosen job (Blank et al. 2015).

Zhan (2015) pointed out several factors that positively add up to the development of self-esteem. The particular want to feel appreciated by others. The desire to learn and acquire new skills and the social engagement among communities is vital for developing self-esteem. Therefore, a particular occupation can provide an individual with an established

personal identity along with enhanced self-esteem. These are non-material outcomes of being in a chosen occupation (Zhan 2015).

1.2.2 Agriculture as An Occupation and Its Prestige

When a person chooses a job, it impacts not only his/her life but also the entire society as well. How an individual thinks about a specific occupation or how he or she shapes their professional life could also affect various elements of society such as economic growth, the performance of different industries, technological advancement, etc. (Blank et al. 2015).

In many countries, the agriculture industry often includes a big chunk of the employment number. Most notably, in developing countries, the agricultural employment status could have different forms. These forms are based on various factors such as the agricultural technique, the types of crops cultivated, or the production orientation (Cheong et al., 2013).

In terms of employment size, developing countries represent the biggest numbers. For example – more than a billion people are involved in the agriculture industry with an increased rate of 12% from 0.25% to 0.28%. However, for developed countries, the number decreases by 10.71% from 0.56% to 62% (Cheong et al.2013)

As for the global workforce, you would get more than 60% of people are directly or indirectly involved in the agriculture industry (Bacchetta et al. 2009). According to the World Bank Data (World Bank 2008), out of four poor people living in the rural areas in the developing countries, three are dependent on agricultural work for earning their livelihood

Ogbeide Ele and Ikheloa (2015) put forward a tantalizing reason for lacking the involvement strategy in agriculture employment. They claimed that the resources are not utilized and used by people who lack interest in agriculture. There are a few flexible solutions for living in rural areas as well.

According to several reports, the prestige of agriculture occupation depends on various factors. However, this prestige fact varies from country to country. According to Inkeles

& Rossi (1956), the difference of prestige of agricultural occupation among countries occurs due to how an agricultural sector of a particular country is developed. Not to mention, people's perception of 'what it means to be a farmer' is another alarming issue for this difference. Treiman (1977) also pointed out the differences among the social organizations for agriculture within a country is another influential factor. As per the study report on Kibbutz and outside, the differences in prestige can be scaled by the rating scale (Adar 1982).

The Kibbutz is located in Israel, where residency is based on voluntary membership. The residents of this communal village have a good bonding with each other as they know about everyone. Here, no wage payment along with communal ownership of the production exists. Both of these factors are the typical characteristics of the Kibbutz (Helman 1992).

Agricultural occupations, as well as other physical work, have a higher prestige level in the case of Kibbutz than in the rest of Israeli society. Given that, Kibbutz society is as industrial as the rest of Israeli society, the level of industrialization was not considered a determinant. The author explained this reality by the specific value systems within the Kibbutz, well as the absence of wage payment for the work (Adar 1982).

Regardless of how a person perceived the occupational prestige of agricultural jobs, many countries do not regard this profession as a white-collar job. Therefore, the case of the Kibbutz is an exception, and an exception cannot be assumed as an example from a global perspective. If you look into the perspectives of youth, the occupational prestige of agricultural jobs is extremely low (FAO 2017). Additionally, the agricultural jobs are deemed as one of the dirtiest jobs by Cole & Booth (2007) as well. They explained in their publication that people who are involved in agricultural jobs belong to the lower class of society with low prestige.

According to the study – "National Comparisons of Occupational Prestige," the USSR had the lowest prestige for agricultural jobs than any other country in the world. Even if the research of the study was conducted decades ago, but the result did point out the significance of how low the agricultural jobs were in the communist past. Not to mention, the entire study was based on several countries, including the USSR's (Hofierkova 2020)

Wegren (2005) and Unay-Gailhard et al. (2019) said Russian youth deemed agricultural jobs as low prestige jobs, with youth from Poland, Latvia, and Lithuania agreed on the same point (Kusis et al. (2016). Aside from the low-prestige factor, agricultural jobs are hard to accomplish with a low potential for income. At the same time, the entire execution phase requires a lot of responsibilities, ultimately offering a not-so-great living standard for the people as well (Kusis et al. 2016; Unay-Gailhard et al. 2018). However, Kusis et al. (2016) reflected on the altering factors of the situation such as the advancement of information technologies, agritourism, industrialization, and organic farming. These factors can strengthen the position of agricultural jobs among nations (Kusis et al. 2016).

According to FAO et al. (2014), the young generation would consider agricultural occupation as their prime profession only if there is economic prosperity with attractive opportunities on offer.

1.2.3. Agriculture and Youth: Rural Areas Global

1.2.3.1 Young Generation's reluctance to take part in agricultural activities

As mentioned earlier, the youth are playing a vital role in confirming the upcoming food safety by engaging in agriculture, with 85% of young people living in developing countries, and the main income source is agriculture. Even though there is a high demand for young people in the agricultural sector, low enthusiasm or excitement is seen (FAO et al., 2014). Young people are losing interest in this sector at an alarming rate globally. They lack the interest to work in agriculture as they do not want to live in rural areas (Van der Geest 2010). To investigate the reason behind this is lack of interest, it has been seen that they formed a misconception about the agricultural sector. They mixed the notion of agriculture with poverty, low prestige, low production, and unappealing (FAO 2017).

Prejudice related to agriculture, such as poor living situations and working hard from dawn till dusk, also contributes highly to their lack of willingness to even consider entering this sector (Kusis et al. 2016). Since young people do not want to work in this sector, a handful of work opportunities continue to remain in these areas.

Employment scope being limited, getting involved in agricultural activities often becomes the last resort of livelihood in rural areas. Few job opportunities in these areas and a lack

of will to work in agriculture also causes migration trends. It creates a situation where farms need workers meanwhile the young population stays jobless (FAO et al. 2014). Another reason that makes this situation even worse is the fact that the youth is not satisfied with the economic condition. As a result, they think it is wise not getting involved or even leave this sector. From many types of research, it is evident that a positive outlook towards agriculture plays a major role in motivating the young generation to choose farming as a profession then extra income (May et al. 2019). Even high income cannot encourage people with a negative outlook towards agriculture to work on a farm(Unay-Gailhard et al. 2019). Farmer parents having negative views on agriculture grounded from their life-long struggle can generate a negative outlook on their progenies too (Kusis et al. 2016)

1.2.3.2 The definitive out-migration from the developing countries or rural areas

Youth is unwilling to work in the agricultural sector of developing countries and from rural areas out-migrate for a better opportunity. But this creates a local shortage of labor in the agricultural sector. In rural areas of developing countries, a large amount of global food is produced. But if there is a shortage of workers, it becomes hard to produce more food. This situation hampers global food production (FAO et al. 2014). People from these countries migrate with the hope that they will get a better employment opportunity, a stable political environment with higher social security benefits. People also migrate for the expansion of knowledge and skill related to the agricultural sector. Bulgaria is the perfect example of this viewpoint. Even though Bulgarians have a desire for a more stable system but acquiring advanced knowledge in the agricultural sector also works as a major motivator (Traikova et al. 2018). So out-migration of rural youth should not always be stigmatized regarding agricultural productivity.

To sum up, more importance should be placed on encouraging those youth to return to their respective countries who migrated to gain knowledge. This will help to ensure more productivity. Germany is the representative of a developed country. But a different scenario is seen there. They have access to high-quality agricultural instruments, huge farms, and even higher technologies. Nevertheless, they face a labor shortage. To overcome this problem, they hire workers from underdeveloped countries (Traikova et al. 2018). This scheme often clashes with the efforts of the developing countries as they also try to keep their young worker involved in farming activities.

1.2.3.3 The exponential aging of farmers

Youth's unwillingness to work in this sector causes the aging of the rural population and the farmers (FAO 2017). The average age of a farmer is about 60 years as young people migrate or show disinterest in this sector. For developing countries, the average age range goes even higher (FAO 2014). Traditional farmer families are the highest producer of food on an international scale (FAO et al. 2014).

If they do not hand over their legacy to their younger generation, global production of food would be even more challenging. Despite traditional farmers are good with nature and have lots of experience, they often lack the courage to try out new things. They show reluctance to apply modern technologies in their farming methods. It results in poor productivity.

The global population is increasing day by day. To feed these additional people, there is no other way but to apply modern agricultural technologies. Only advanced agricultural techniques can ensure global-scale food production as well as safeguard extra produce for the upcoming generations (FAO et al. 2014).

Mentioned problems like disinterest in agriculture, out-migration, aging of farmers all state that it is high time for us to turn youth's interest back to agriculture. But it should be kept in mind that the youth's role in the agricultural sector can differ from country to country.

Methods used for attracting young people in this sector should be by the regional and demographic situation.

1.2.4 Agriculture and Youth: Rural Areas Bangladesh

1.2.4.1 The Climate Change Impact and Agriculture of Bangladesh

Bangladesh's economy depends on agriculture. According to published data, the agricultural sector contributed 20% of the entire GDP. Along with that, the subsectors contributed 12% of the total GDP at the constant prices in the 2009-2010 fiscal year (GoB 2010). Of the total rural population, some 85% of the people directly or indirectly live by off agricultural work. Among the crops produced, the production of rice is high,

contributing a total of 95% of the total food production. (GoB 2010). When producing rice crops, climate change is a significant factor. (Ahmed et al. 1996). In Bangladesh, people prefer to eat rice over other food items, making it the leading staple food. However, climate change is what causes the production level to deteriorate. According to a forecast, climate change would be responsible for decreasing rice production to 7.4% every year from 2005 to 2050 (Chen & Mueller 2018). This study was conducted because of a higher rice production rate in Bangladesh, resulting in a big impact on the economy of the country as well. Aside from climate change, other different types of seasonal changes such as heavy rainfall, temperature, humidity, and the length of the day could play a vital role in the number of rice crops produced every year. Not to mention, natural calamities, including floods, cyclones, storms, soil and water salinity, and droughts, are some other factors for a reduced level of rice crop production. Additionally, the rise in temperature or a severe drought could cause a low-yielding crop percentage in Bangladesh. On the other hand, heavy rainfall has a drastic impact on agricultural work in different parts of the country as well. As Bangladesh is an agricultural country, it is constantly focusing on industrialization. Therefore, climate change would have a bigger impact on the production of crops (Saiful Islam 2018)

1.2.4.2 Novel Coronavirus (COVID-19) Effect on Agriculture in Bangladesh

As the world is coming to terms with the impact of the COVID-19 pandemic, there is already a big impact on the entire agricultural sector of Bangladesh. Since Bangladesh, along with the rest of the world, was in complete lockdown, the transportation system collapsed entirely. The food supply chain has been damaged and disrupted to bits. As a result, there is negative growth in the price of all types of agricultural products (Zabir et al. 2020). According to (Zabir et al. 2020), the Bangladeshi food and agricultural sector has been impacted greatly by COVID-19. The consumer perception in buying food has been transformed entirely. At the same time, the supply chain of the food industry is going through a lot of changes, especially the individuals involved or the employers who are delivering services in the food industry. As for Bangladesh, the food supply chain has been affected badly, with an alarming economic crisis looming upon the industry. This economic crisis is relevant to the farmers who are the actual producers of agricultural products. They are getting paid in fewer numbers with a scarcity of labor supply in place (Amjath-Babu et al. 2020). Besides, there are fewer buyers in the market as well.

Not to mention, the negative impact on the entire food supply chain has caused food security. There are not many available products to buy from along with the food industry, the fisheries and forestry industries have been negatively affected by COVID-19. Therefore, there is a need for change in the process of the food supply system. The significant point here is to overcome the severe impact of the COVID-19 pandemic. Everybody should look into the success of online shops, providing food service to the mass people. People of all ages are willing to pay any amount of money to get high-quality foods, delivered at their doorstep but at the same time many of young starts losing their jobs and returning their root to the village and start farming or helping their parents. (Sekender Ali & Saeed Siddik Sk Md Nur-E-Alam Tayeba Khanam Most Moriom Khatun 2020).

1.2.4.3 Migration and Agriculture in Bangladesh

According to (IFAD 2007), almost 75% of the entire world population relies on agricultural work for their livelihood. To add to this fact, migrants play a significant role in developing the commercial agricultural infrastructure by acquiring the knowledge for modern agricultural equipment and buying the required land for cultivating crops. To this date, these changes, along with the use of new types of crops, have established new farms, inventing and using new strategies for agricultural work. However, the effect of migration is not the same as it should be for different places in the country, especially for Bangladesh. For example – the areas or regions, which have sufficient cultivable land or enough water supply for irrigation could attract more investment from the international migrants (Call et al. 2017)

Therefore, the impact of the migrants on the labor force should be considered based on both the origination place and the destination place. How an immigrant would impact the labor force depends on the type of migration, personal traits, and characteristics. All these factors account for the overall effects of migration on the labor force. Furthermore, by a large scale, both the origin and destination place are the driving force behind the result from a migrant. To put it precisely, if the youth are constantly migrating, there is a harmful effect on the entire family labor, the productivity of the farm, and the overall growth of the population in a specific rural area. Therefore, the out-migration can affect the labor supply and the food production level of a country like Bangladesh (Sarker et al. n.d.) Along with this fact, the slow yield adverse aging of the labor force hinders technological

development in agriculture, decreasing the growth rate of agricultural productivity (Okereke 1975; Standt 1985; Palmer 1985). At the same time, there is more reliance on the out-migrant workers, aggravating the situation gravely. Because of the out-migrants labor cost is more expensive than the youth of the country. In truth, the out-migration is the cause of the scarcity in the country's agricultural labor force, which is not entirely accepting of the migration process. (Chen & Mueller 2018)

1.2.4.4 Labor Shortage and Agriculture in Bangladesh

The rural-urban migration causes a double problem, which in return affects the whole rural and urban communities together. The primary consequence of this kind of migration problem on agricultural productivity is harmful since there would be a loss of labor in the family. The rural community would be affected because the young people would choose other countries for their livelihood. In contrast, they should support the adults of the community to develop the country's agricultural infrastructure. This loss of labor force, including young men and women destined for a significant role in agriculture, would be massive for the agricultural decline within the country. According to Islam (2018), internal migration from rural to urban areas is another cause of the agricultural decline. This internal migration causes an enormous ramification on the production level for agriculture. This is simple as the young people are leaving, the older people have to bear the responsibility of carrying the legacy of agricultural activity (Angba 2003). Still, the migration problem is not entirely fundamental in changing the landscape of agriculture. Nevertheless, it plays a vital role in rural areas' livelihoods (Saiful Islam 2018).

All households would have less labor force at hand for producing crops. If the family of the migrants depends on the labor force to deliver the end product of the crops, then it is clear, there would be a decline in the productivity of the agricultural activity. When the migrant is young and educated, the loss of the labor force is felt massively than any other rural area's labor (Islam 2018) (Taylor et al. 2003). Additionally, migration could harm the overall labor force of a country. (Rozelle et al. 1999). The income from the household crop is also negatively affected due to the loss of labor (De Brauw and Rozelle 2003). For all parties involved in agricultural activity, including the government, household, and policymakers, the labor shortage is a big challenge to overcome, especially in countries like Bangladesh. The entire labor force rate drops drastically because of the out-migration of young people. As a result, the net wealth of the household decreases, ultimately

affecting the rural economy and the food safety program of a region (Mini 2000). In truth, the exponential growth of the out-migration of the young generation is crippling the agricultural industry as the country has only elderly people and children to rely on for agricultural growth (Islam 2018).

1.2.5 The critical aspects influencing the decision to choose agriculture as a career

i. The attitudes to agriculture and prestige

Like any other country, Bangladesh also has many preconceptions about agriculture. These predetermined notions play an essential role in deciding on one's career (Kidane 2014). Young people's choices are made following what their position would be in society rather than their needs (Baker 1992). Generally, these kinds of psychological behavior, which comes from society and culture, are seen among Asian people (Triandis 1989).

Asian parents think higher degrees are the ladder for higher positions in society. They connect higher educational accomplishments with occupational skills (Lightbody et al. 1997). It results in young people rejecting employment opportunities just because their position in society is a bit low (Furlong & Cartmel 1995). They have a delusional picture of a farmer's life. According to them, a farmer is someone who always wears clothes covered in soil, lives from hand to mouth, cannot support their family (Noorani 2015). So, the role of a farmer is often neglected, thinking it lacks prestige. Occupational status or is often determined by the perception of others (Hoyle 2011). According to Dramé-Yayé et al. (2011), occupational status is subjected to the outlook of a large portion of the people carrier. Higher acknowledgment of a job puts it in a higher position and lower acknowledgment in the lower position. That is how an occupational pyramid is made. Society's view about a job becomes the standard. People revolve their life around it so that they can match the standard. Occupational status is an indicator of how much money one makes out of it. The most important indicator is work responsibility or power a certain profession holds (Kadushin 1958). To further investigate in Garwe (2015) did research in Zimbabwe and found that four negative presumptions related to agricultural work. These presumptions are the causes of choosing other high positioned jobs. Over the years, these prejudices have been drilled into our minds by society. These perceptions exist in our

homes, schools even in universities. The reasons behind this mindset are young people considering hard agriculture work with low income and status (Abdul Salam al-Saghir et al.2008). South Africa is trying to develop its agricultural sector for several years. So, they are providing training and education about agriculture. But they are facing difficulties with young people's pre-existing notions about agriculture. They think it to be low class and unprofitable.

ii. The satisfactory way of living in rural areas

Even though there are many examples of agricultural success, nevertheless it needs a major endeavor to make it appealing to young people. So that they willingly get involved in this sector (Abdullah et al. 2013). Strategies like creating a positive outlook on rural life can be a good start. Evidence suggests that a positive outlook on the rural lifestyle can get young people interested in agricultural activities (Yazdanpanah et al. 2015). In 2018 (Unay-Gailhard et al. 2019; Bavorova et al 2019). performed research in Altai Krai Region, Russia. The finding suggests that a suitable financial and societal setting is a great reinforcement to pull more than half of the participants (59.53 %) into considering rural life. Without that, only 11.23 % were interested in rural life, and 29.24% of participants were not interested.

iii. The significant opinion of the parents towards agriculture

Children are highly influenced by their parent's philosophy of life, the things they do, or the way they act(Gottman et al. 1996). So, it is understandable that they would have a profound impact on their child's career decision. The education they receive from their parents is the most crucial aspect in career selection(Furlong & Cartmel 1995; M & Sekumade 2013). Parent's occupational backgrounds are often seen to motivate their children to take that as their career in the future (Wildman & Torres 2001). Doctor's children become doctors; lawyer's children become lawyers; seemingly, farmer's children grow a liking to agricultural work. In a study, Miller et al. (2011) found that 54 % of the students selected their profession as being motivated by their parent's profession. The causes can be that students are familiar with their parent's occupation, has the experience, or knows what to expect. Student's concept about an occupation is grounded on their parents or other grown-ups they take as models (Wildman & Torres 2002).

Adedapo et al. (2014) did a regression analysis to see if there is a meaningful connection between parents and selecting agriculture as a course as well as a career among university

students. The study found that 56.25% of the participants were highly motivated by their parent's career choices. Onuekwusi and Ijeoma (2008) also received similar findings from their research where 74% of students said their parents played a major role in making occupational choices, particularly students with an agricultural background.

Generally, village societies in Bangladesh are made up of interconnections. There, everyone knows everyone creating a solid brotherhood.

The localities are comprised of family members and family friends. The children are raised to be amicable with other children. They observe their parents' and relatives' farming activities and forms a liking to them. Deducing that these children would be highly motivated by their parents to consider farming as a potential career choice is valid (Noorani 2015).

iv. The influence of Friends and Family

When choosing a career, people's decision is influenced by friends and family. When it comes to agriculture, this influence heightens to another level since friends who are studying in other universities in other disciplines such as medical or engineering could easily make an impact on young people's minds. Therefore, they perceive that agriculture is not a progressive career with or little scope for innovation (Hamill 2012; Esters & Bowen. 2004).

Furthermore, the negative perception regarding agriculture as a career is stemmed from the idea that agricultural work is dull with less opportunity in place for the farmers. To add to this fact, people believe that agricultural work needs more effort and perseverance than any other job in the market. As a whole, farming would provide a little fortune to the people who are willing to take the road of hard work. For this reason, people assume that agriculture as a career is an unattractive option. At the same time, the young generation is not interested in living hand to mouth since they want the highest amount available in the market for their service or work (Noorani 2015).

When the young generation is about to decide on agricultural work, they seek guidance from their friends and family who are studying other lucrative subjects. Ultimately, they influence the core decision of faculty choice, which is academically proved by the scholars (Barkley & Parrish 2005; Donnermeyer & Kreps 1994). According to Adedapo

et al. (2014), almost 40.40% of students who had taken agriculture as their career made their decision by seeking guidance from friends and family.

v. The experience of doing agricultural work

As most of the students are not familiar with a career in agriculture, this is a big hindrance in choosing agriculture as a career (Gilmore et al. 2006; Scott & Lavergne 2004). Many students enter into the agriculture world without possessing less knowledge about the professional world. They even do not know the way to tap into opportunities in the agriculture sector (Esters 2008). Besides, the students have little or no participation in career exploration in agriculture as they are not well educated about the agriculture sector (Esters 2007). Fouad, The students must be aware of how the agriculture industry works. They should know about the agricultural job opportunities in advance and follow the esteemed people of the industry (Jones et al. n.d.)(Jones & Larke 2003).

According to Adedapo et al. (2014), 56.67% of students out of 100% who were entering into the university did not possess any agricultural work experience. On the other hand, M & Sekumade (2013) highlighted that 59.36% of students had prior experience in the agriculture sector before entering university.

vi. The Gender effect on choosing agriculture as a career

Compared to men, women are less interested in working in agriculture. There is a big difference in the career choices that both men and women take (Payne 2003). Russell et al. (2010) and Dorsett and Lucchin (2014) pointed out the regularities in professional preferences by both male and female labor force. Women tend to receive direct or indirect influence from the family regarding the choice of occupation. (Fouad et al. 2008). People perceive that females are not the natural heir to take over a family business (Mann 2007).

This problem increases when the gender classification is made while choosing a profession, especially agriculture as a career. It can also be seen for an extended period (Furlong & Biggart 1999). Forsythe et al. (2010), Odejide et al. (2006), and Krueger and Rieseberg (1991) highlighted that agricultural work is more suited to males than to females due to the physical work involved in the profession. On the contrary, both men and women have a discerning style of choosing a particular career, according to (Kim 2009). Adisa (2016), Bello et al. (2015), the gender difference had nothing to do with choosing agriculture as an occupation. Furthermore, Lehberger and Hirschauer (2015)

said that the more active males are natural successors for taking a farm manager position in the future than any other female.

2.0 Objectives and Questions

2.1. Main objective

The main objective of this thesis paper was to measure and evaluate the critical aspects influencing the decision to take agriculture as a career of students from Sher-e-Bangla Agricultural University. Therefore, this paper would provide policy recommendations and suggestions based on quantitative analysis.

2.2. Specific objectives

The following specific objectives were developed based on the main objective:

- To figure out the respondent's intention towards agriculture and the prestige of agriculture as an occupation.
- To analyze the socio-economic factors, including gender, father's occupation, mother's occupation, farming experience, on the decision to take agriculture as a profession.
- To observe the effect of satisfaction in the rural living standard for choosing agriculture as an occupation.
- To measure the influence of the opinions of the parents for choosing agriculture as a profession.
- To evaluate the influence of the opinions of friends for choosing agriculture as a profession.

2.3. Research question

Both the main and the specific objectives interpreted in the following research question –

"What are the critical aspects influencing the decision to take agriculture as an occupation?"

3.0 Hypotheses

While conducting this report, One Binary logistic regression model was used to test the below hypothesis.

H1: Gender is not responsible for impacting the perceived level of the reputation of the farmer's occupation.

H2: Age does not impact the apparent prestige level of reputation of farmers' occupations.

H3: Father's occupation as a farmer increases the probability of students intending to work in agriculture.

H4: Increasing family income increases the probability of students intending to work in agriculture

H5: Family ownership of agricultural land increases the probability of students intending to work in agriculture.

H6: Farming experience increases the probability of students intending to work in agriculture.

H7: Attraction of the rural way of living increases the probability of students intending to work in agriculture.

H8: Perceived prestige of agriculture increases the probability that students intending to work in agriculture.

H9: Parent's opinions in regard to the agricultural job increase the probability of students intending to work in agriculture.

H10: Friend's influences on studying agriculture increase the probability of students intending to work in agriculture.

H11: Household size increases the probability of students intending to work in agriculture.

H12: The more definite the opinion that agriculture is an exciting job, the higher the job prestige of farming occupation would be.

H13: One parent working in the agricultural sector increases the job prestige of the farming occupation significantly for the family.

4.0 Methodology

4.1 Study Area

Sher-e-Bangla Agricultural University, the oldest agricultural institution of Bangladesh, is in Tejgaon, Dhaka.

Formerly, this institution was known as the Bengal Agricultural Institute (BAI), established in 1938. Over the years, it has seen many changes, but in 2001, the national parliament passed the "Sher-e-Bangla Agricultural University Act 2001", making it the 17th public university of Bangladesh. The university formally started its function on September 11, 2001. It is a non-profit organization, and the government covers its entire expenses.

As said earlier, the former name of SAU was the Bengal Agricultural Institute (BAI); Sher-e-Bangla A.K. Fazlul Huq founded this institution on December 11, 1938. The university is the oldest agricultural institution not just in Bangladesh but in South Asia. The institution went through a massive change in 1947 when it was renamed as "East Pakistan Agricultural Institute." In 1971, Bangladesh emerged as an independent nation, and the name of the university automatically changed into the Bangladesh Agricultural Institute (BAI) functioned under Dhaka University.

The Sher-e-Bangla Agricultural University thus so far has given approximately 5700 graduates and 600 postgraduates to the nation. Bangladesh is an agricultural country, and graduates from this university have taken the lead role in developing its agricultural system. But these graduates are not confined to one field; they are rendering their services at national and international levels. They are in civil services and UN missions too. They are also involved in services like UN peacekeeping forces. Now around 2500 undergraduate and postgraduate students are receiving education from highly qualified and experienced faculties.

The core purpose behind the establishment of Sher-e-Bangla Agricultural University was to ensure the expansion of higher agricultural education, which is devoted to promoting researches in sectors related to agricultural sciences. Several departments of the university are already involved in quite a few research projects. The Sher-e-Bangla Agricultural

University has successfully secured some collaborative research programs with overseas universities.

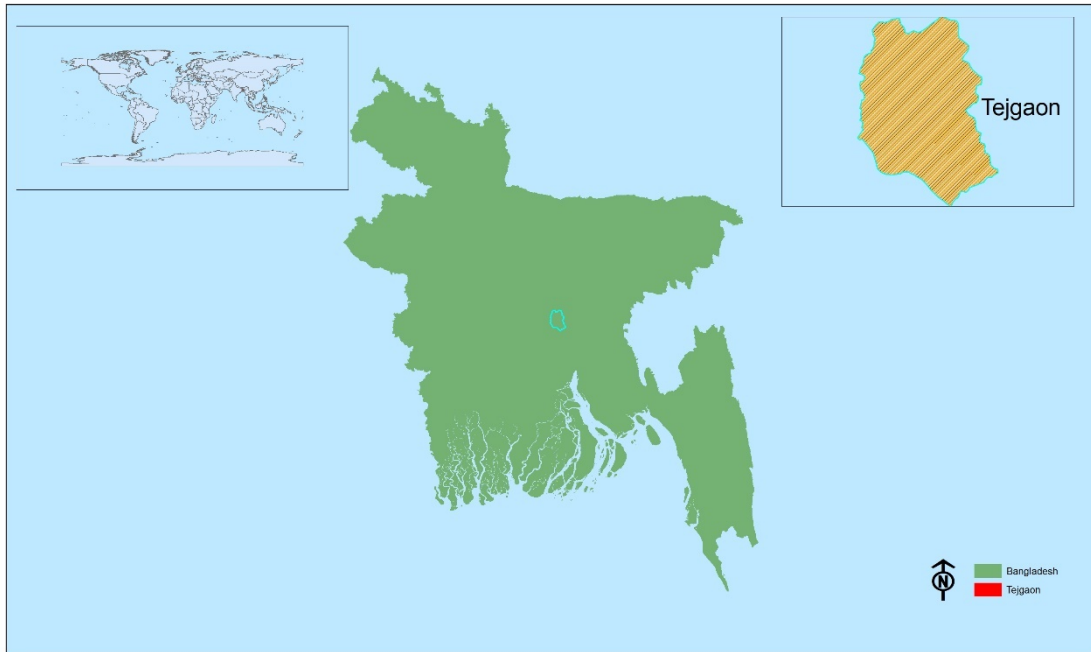


Figure 01: Map of Bangladesh with Tejgaon circle

Source: author 2021

4.2. Research instruments

To collect data and information, we have used the structured questionnaire (included in Annex 1). We designed the questionnaire based on prior academic reports and studies to ensure our collected data can be matched and compared with the existing results. (Unay-Gailhard et al. 2019)(Bavorova et al. 2018; Adedapo et al. 2014; Bello et al. 2015). The questionnaire included several open-ended questions with multiple-choice questions. We had exactly 19 questions ready for collecting data from the sample size. The questionnaire included the following sections:

- Section A: Parents' opinion
- Section B: Friends' influence
- Section C: Attitudes towards agriculture

- Section D: Agriculture prestige
- Section E: Willingness to work in agriculture in the future
- Section F: Contentment to the rural way of living
- Section G: Location
- Section H: Socio-economic characteristics of the respondents

4.3. Target population and Sampling techniques

Our target population for this study was the students of Sher-e-Bangla Agricultural University, which represent students with different geographic locations with various cities in Bangladesh. We used the convenience sampling technique to collect data from four different faculties Faculty of Fisheries Aqua & MS, Faculty of Agribusiness, Faculty of Agriculture, and Seed Technology in the Sher-e-Bangla Agricultural University.

4.4. Data collection

The survey was carried out at the four faculties in the Sher-e-Bangla Agricultural University during November and December 2020. We pre-tested the questionnaire in November 2020. Based on several student's comments, we also made necessary changes to the structure of the questionnaire. We had carried out questionnaire using google sheets through the internet to various student groups using the English language. In total, 272 questionnaires were handed out via google forms mode to the students, out of which 210 contained valid answers for further research analysis.

4.5. Analysis of data

After collecting data from the sample, we coded and transmitted the data into an electronic database for analysis. SPSS (Statistical Package of social sciences) and Excel software were used to conduct the analysis of the data. We used Descriptive Statistical techniques such as frequencies, means, standard deviations, and percentages to describe the data. We also incorporated the Binary logistic regression model to represent the significant factors that influence the intention to work in agriculture. The multicollinearity diagnostic was

used to test the significance of this model. The model is as follows ((Hastie et al. 2006) (James et al. 2013):

$$Y = \text{Ln} (P/1 - P)$$

$$\text{Ln} (P/1 - P) = b_0 + b_1 x_1 + b_2 x_2 \dots + b_5 x_5 + e$$

Where:

Y = Dependent Variable (No = 0, Yes = 1)

P = Probability of the event Y (Probability of intention to work in agriculture)

Ln = Natural logarithm function

b_0 = Constant

b_1 - b_6 = Regression coefficients

x_1 - x_5 = Explanatory variables

e = Stochastic error term to introduce all the variation in Y that cannot be explained by the included X

P/1 = Odd ratios (odd in favor to work in agriculture)

Table 1: Description and measurement of the study variables used in binary logistic regression model

Study Variable	Description and categories
Dependent Variable Intention to work in agriculture	0-No 1-Yes
Socio-economic Gender of respondents	0- Male 1-Female
Father's occupation	0- Not agriculture 1- Agriculture
Mother's occupation	0- Not agriculture 1- Agriculture
Family income	1-Less Than 50000BDT 2-51000-100000 BDT 3- More than 101000BDT
Family ownership of agricultural land	0- No 1- Yes
Future living	1- Large city (more than 100.000 inhabitants) 2- Medium city (more than 10Thu inhabitants) 3- Village (up to 10 Thousand inhabitants)
Farming experience	0- No 1- Yes
Contentment to the rural way of living	0- No 1- Yes
Parents' opinion regarding agricultural job	Strongly disagree (1); Disagree (2); Neutral (3); Agree (4); Strongly agree (5)
Friends' influence regarding studying agriculture	Strongly disagree (1); Disagree (2); Neutral (3); Agree (4); Strongly agree (5)

Source: own survey

4.5.1. Multicollinearity

To test the binary regression model, the presence of multicollinearity was tested with a Tolerance and VIF (Variance Inflation Factor). When there are high intercorrelations among the set of predictor variables, multicollinearity occurs (James et al. 2021). The tolerance and the VIF would provide the same information. To determine the presence of multicollinearity, the cut-off points are – the value of tolerance less than 0.10 or a VIF value of above 10 ((Draper & Smith 2014).

Note that the tolerance points out the variability of a particular independent variable, which is not explained by other independent variables. It is calculated using the below formula:

$$\text{➤ Tolerance} = 1 / \text{VIF}$$

There is a problem with multicollinearity if the Tolerance value is less than ($< 1 - R^2$), in which the R^2 is the value obtained by the regression model (James et al. 2021).

5.0 Results

5.1. Descriptive Statistics

Among the respondents, 46.7% were male, and 53.3% were female. 65.7% of respondents had a positive intention to work in agriculture, whereas 34.3% did not want to work at all (Table 2). Those who had the intention to work in agriculture wanted to pursue various agricultural career choices. 18.1% of respondents wanted to join private farms, while 3.8% were interested in becoming a farm manager of a small farm. However, 29% of respondents wanted to become farm managers of a large farm, but only 2.4% of people wanted to join fertilizers. The remaining 12.4% wanted to take part in other agricultural work. Mentionable here are the respondents who were not interested in agricultural work wanted to pursue a career in the industrial sector, fashion, IT, and medicine.

According to Table 2, 56% of the respondent's father's occupation was agriculture. On the other hand, 79% of the respondent's mother's primary occupation was not agriculture. Besides, 54.8% of the respondent's family income was between BDT 50,000 and BDT 100,000, whereas 21.9% of the respondent's family income was less than BDT 50,000. Only 23.3% of respondent's family income was more than BDT 100,000.

Along with the mentioned results, 79% respondent's family has agricultural land, while the remaining 21% do not own any agricultural land. Moreover, 43.3% of respondents wanted to live in a large city with a population of more than 100,000 people, whereas 26.7% of respondents wanted to live in a middle-sized city with a population of more than 10,000 people. The remaining 30% of respondents chose to live in a village where the population is under 10,000 people. However, among the respondent, 50% were living in a village, 18.6% were in a middle-sized city, and 31.4% were living in a big city.

As for the farming experience of the respondents, 50% reported that they had prior experience in agricultural work, whereas the remaining 50% did not have any experience of working any agricultural work. Interestingly, 22.9% of respondents reported that they had gained their experience from the family's agricultural land. 21.9% said that they had earned their experience from training courses. The remaining respondent said they had acquired their experience from other sources.

Regarding the contentment to the rural way of living, 46.7% preferred the rural way of life, but the remaining 53.3% declined to be in rural life. As for getting jobs, 20% of respondents strongly disagreed that studying agriculture would help them get jobs, whereas 56.7% only disagreed with the point. 23.3% of respondents remained neutral. In the case of friend's influence for studying in agriculture, 13.3% strongly disagreed with this fact, and only 6.7% strongly agreed with the friend's influence. 16.7% of respondents remained neutral.

Table 2: Descriptive statistics of variables used in the model N=210

Question code	Question type	Question text	List of answers	Frequency	respondents % of
Dependent variable: Work in agriculture	*MCo	Do you have the intention to work in agriculture in The future?	0- No	72	34.3
			1- Yes	138	65.7
*MCo		If Yes, in which area Should be?	1- Private farm	38	18.1
			2- Farm manager of a small farm	8	3.8
			3- Farm manager of a large farm	61	29.0
			4- Fertilizers	5	2.4
			5- Other	26	12.4
**OP		If No, in which area would you Like to work?	Teaching	6	2.9
			Media	6	2.9
			Engineering	6	2.9
			Industry	15	7.2
			IT	17	8.1
			Medicine	11	5.2
			Fashion	9	4.3
			Trading	2	1.0
Gender	*MCo		0- Male	98	46.7
			1- Female	112	53.3
Father's occupation	*MCo	What is your father's occupation?	0- Not agriculture	119	56.7
			1- Agriculture	91	43.3
Mother's occupation	*MCo	What is your mother's occupation?	0- Not agriculture	166	21.0
			1- Agriculture	44	79.0
Family income	*MCo		less than 50K BDT	46	21.9
			between 51K -100K BDT	115	54.8
			Over 101K BDT	49	23.3
Our family owns agricultural land	*MCo		0- No	44	79.0
			1- Yes	166	21.0

Future living	*MCo	In future, I wanted to live in	1- Large city (more than 100.000 inhabitants)	91	43.3
			2- Middle size city (more than 10Thu inhabitants)	56	26.7
			3- Village (up to 10 Thu inhabitants)	63	30.0
Where have you have been living in the largest part in your life	*MCo		1- In a village (up to 10 Thousand inhabitants)	105	50.0
			2- In a middle-size city (1001-100.000 inhabitants)	39	18.6
			3- in a larger city (more 100.000 inhabitants)	66	31.4
Farming experience	*MCo	Do you have experience with work in Agriculture?	0- No	105	50.0
			1- Yes	105	50.0
	**OP	If Yes, from where you have practiced experience?	1- My family has a farm	22	22.9
			2- Training courses	24	21.9
			3- Other	59	55.2
Contentment to the rural way of living	*MCo	Attraction to the rural way of living	0- No	42	46.7
			1- Yes	168	53.3
Parents' Opinion regarding agriculture	*MCo	According to my parents, studying agriculture helps me to find a job in the future	1. Strongly disagree	-	-
			2. Disagree	42	20.0
			3. Neutral	119	56.7
			4. Agree	49	23.3
			5. Strongly agree	-	-
Friends' Influence regarding studying agriculture	*MCo	Friends inspired me to study agriculture	1. Strongly disagree	28	13.3
			2. Disagree	112	53.3
			3. Neutral	35	16.7
			4. Agree	21	10.0
			5. Strongly Agree	14	6.7

Source: own survey

According to Table-3, the minimum age group of the respondents collected from the sample was 17 years. On the contrary, the maximum age group was 41. In the case of the number of family members for the respondents, the minimum number of family members was only two (02), and the maximum was 10.

Table 3: Descriptive Statistics of Age and Number of Family Members

Question text	Question Type	Minimum	Maximum	Mean	Standard Deviation
Age	**OP	17	41	21.43	4.138
Number of family members	**OP	2	10	4.50	1.439

**OP: open question

Source: own survey

The following figure shows the total number of respondents from their respective originating locations. According to the pie chart, the lowest number of respondents from Kishoreganj, Bandarban, Sirajganj, Sylhet, and Panchagor (05 respondents) whereas the highest was reported from Pabna and Cox's Bazar (15 respondents).

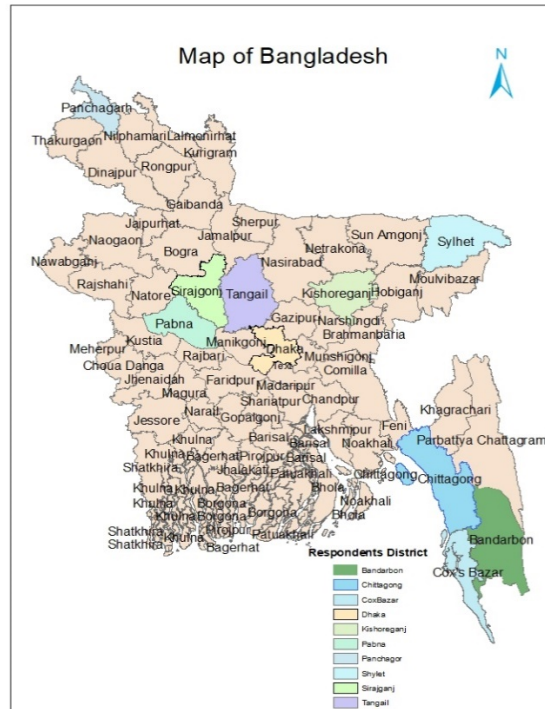


Figure 02: Number of Respondents Based on Location

Source: Author 2021

5.2. Faculty of Respondents and Their Intention Towards Work in Agriculture

The below figure shows that there are four faculties – Faculty of Fisheries Aqua & MS, Faculty of Agribusiness, Faculty of Agriculture, and Seed Technology in Sher-e-Bangla Agricultural University (SAU). We can depict from the graph that students from Seed Technology are less interested in working in agriculture in the future as the curve is flat and represents a frequency below 20.

However, the students from the Faculty of Agribusiness are more likely to intend to work in agriculture in the future since the curve is in an upward trend with a frequency above 60. The students from the Faculty of Agriculture seem neutral in their decision to work in agriculture in the future. Lastly, the students from the Faculty of Fisheries Aqua & MS have a lower trend of below 20 to work in agriculture in the future.

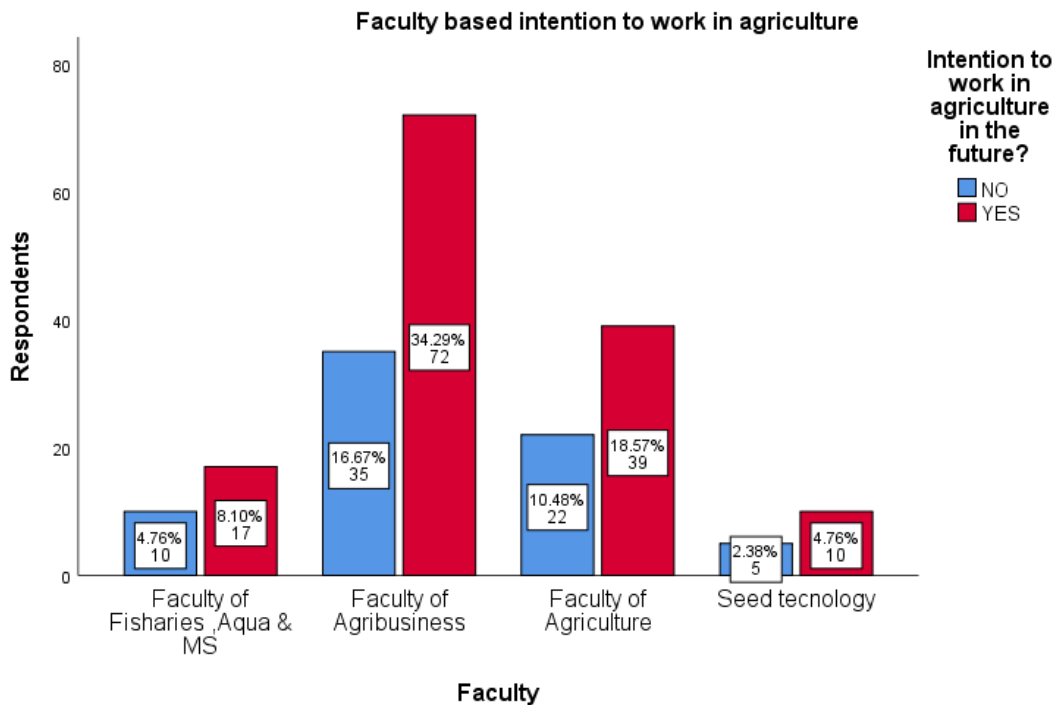


Figure 03: Faculty vs. Intention to Work in Agriculture

Source: own survey

5.3. Attitudes Towards Agriculture

Table 4: Descriptive attitude towards agriculture

Question	Question	List of answers	Frequencies	% of respondents
Dirty work	*MCo	1- Strongly Disagree	28	13.3
		2- Disagree	112	53.3
		3- Neutral	35	16.7
		4- Agree	21	10.0
		5- Strongly agree	14	6.7
Low-income work	*MCo	1- Strongly Disagree	28	13.3
		2- Disagree	56	26.7
		3- Neutral	42	20.0
		4- Agree	63	30.0
		5- Strongly agree	21	10.0
Hard work	*MCo	1- Strongly Disagree	-	-
		2- Disagree	-	-
		3- Neutral	21	10.0
		4- Agree	126	60.0
		5- Strongly agree	63	30.0
Time - consuming work	*MCo	1- Strongly Disagree	-	-
		2- Disagree	14	6.7
		3- Neutral	91	43.3
		4- Agree	70	33.3
		5- Strongly agree	35	16.7
	*MCo	1- Strongly Disagree	-	-

Important work for society		2- Disagree	7	3.3
		3- Neutral	14	6.7
		4- Agree	63	30.0
		5- Strongly agree	126	60.0
Work close to nature	*MCo	1- Strongly Disagree	-	-
		2- Disagree	-	-
		3- Neutral	35	16.7
		4- Agree	77	36.7
		5- Strongly agree	98	46.7
Men work	*MCo	1- Strongly Disagree	14	6.7
		2- Disagree	98	46.7
		3- Neutral	42	20.0
		4- Agree	42	20.0
		5- Strongly agree	14	6.7
Suitable for people with low income	*MCo	1- Strongly Disagree	14	6.7
		2- Disagree	63	30.0
		3- Neutral	112	53.3
		4- Agree	21	10.0
		5- Strongly agree	-	-

*MCo: multiple choices; only one answer accepted

Source: own survey

Dirty work: 16.6% of respondents agreed that agriculture was dirty work, whereas 33.3% of respondents denied the statement.

Hard work: 60% of the respondent agreed that agriculture was hard work, while 30% of respondents strongly agreed that the work was undoubtedly hard work.

Low-income work: 13.3% of respondents strongly disagree with the statement, while 26.6% disagreed that agriculture was a low-income work. However, 10% respondent agriculture indeed was a low-income work.

Time-consuming work: Only 6% of respondents agreed that agriculture was time-consuming work. However, 16.6% strongly agreed with the statement, and 33.3% of respondents agreed with the fact.

Important work for society: Only 3% of the respondent disagreed with the statement, whereas a whopping 60% of respondents strongly agreed with the statement. Also, 30% of respondents agreed that agriculture is an essential work for society.

Work close to nature: 36.6% of respondents shared that if they choose agriculture, they would be able to work close to nature. 46.6% of respondents strongly agreed with the statement.

Men work: 6% of respondents strongly disagree with the statement, and 46.6% respondents also disagreed that agriculture was a men's work. However, 6.7% of respondents strongly agreed with the statement, and 20% of respondents agreed that agriculture is a men's work.

5.4. Comparison Between Female and Male Attitudes Towards Agriculture

Descriptive Statistics were used to find out the results representing the attitudes towards agriculture for both male and female respondents. We have used a Likert Scale (1-5) for the responses range 4(5-1), and the highest value is .80(4-5=0.80), collected using the questionnaire. We have combined the data for both males and females to ensure the results are explained accurately. The five points of the Likert Scale are as follows:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

A Chi-square test was examined to see the trends between gender and attitudes towards agriculture but did not find any solid significant relationship where $P < .005$. In below bar charts, it shows the respondent's attitudes towards agriculture on different occasions.

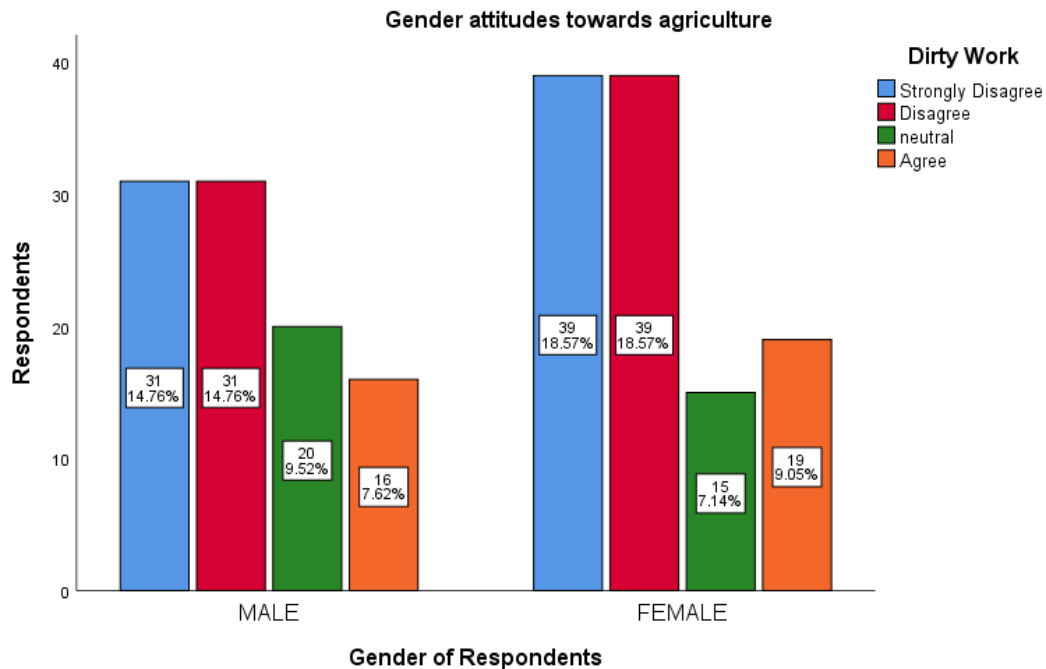


Figure 04: Gender attitudes towards agriculture (Dirty work)

Source: own survey

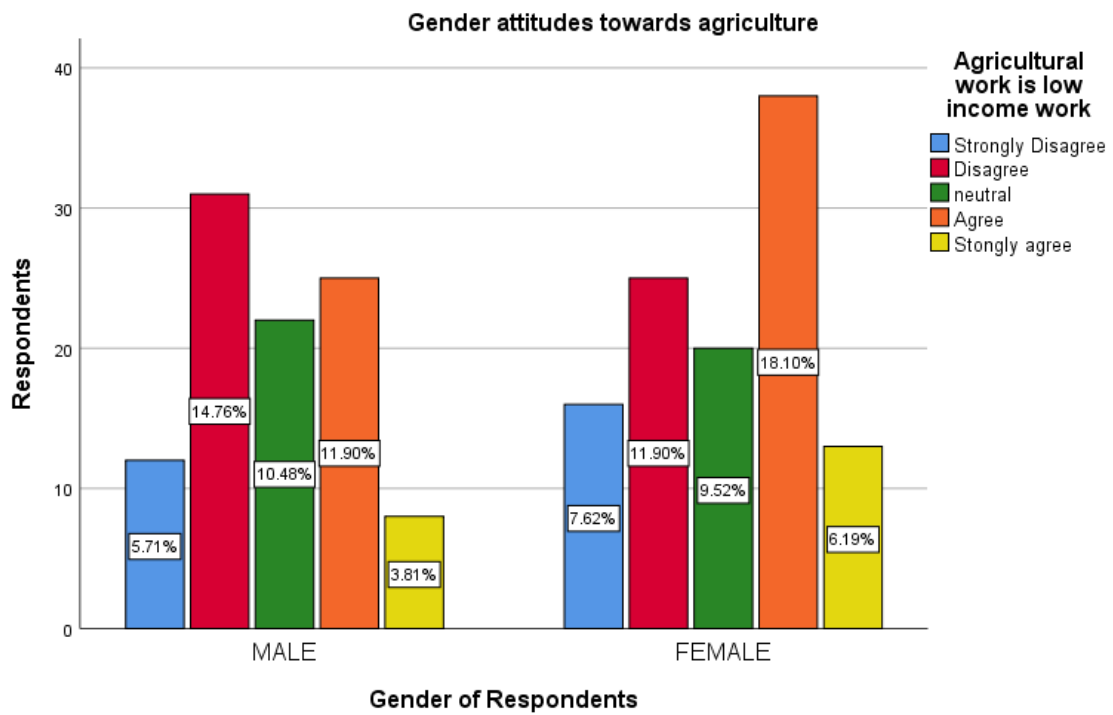


Figure 05: Gender attitudes towards agriculture (low-income work)

Source: own survey

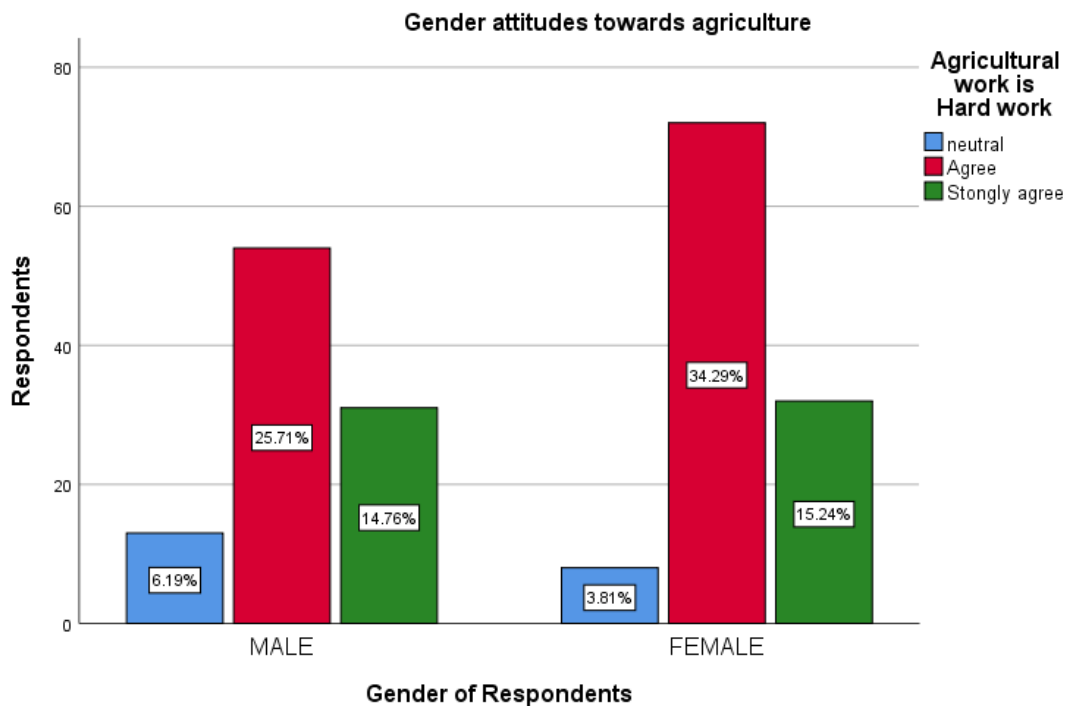


Figure 06: Gender attitudes towards agriculture (Hard Work)

Source: own survey

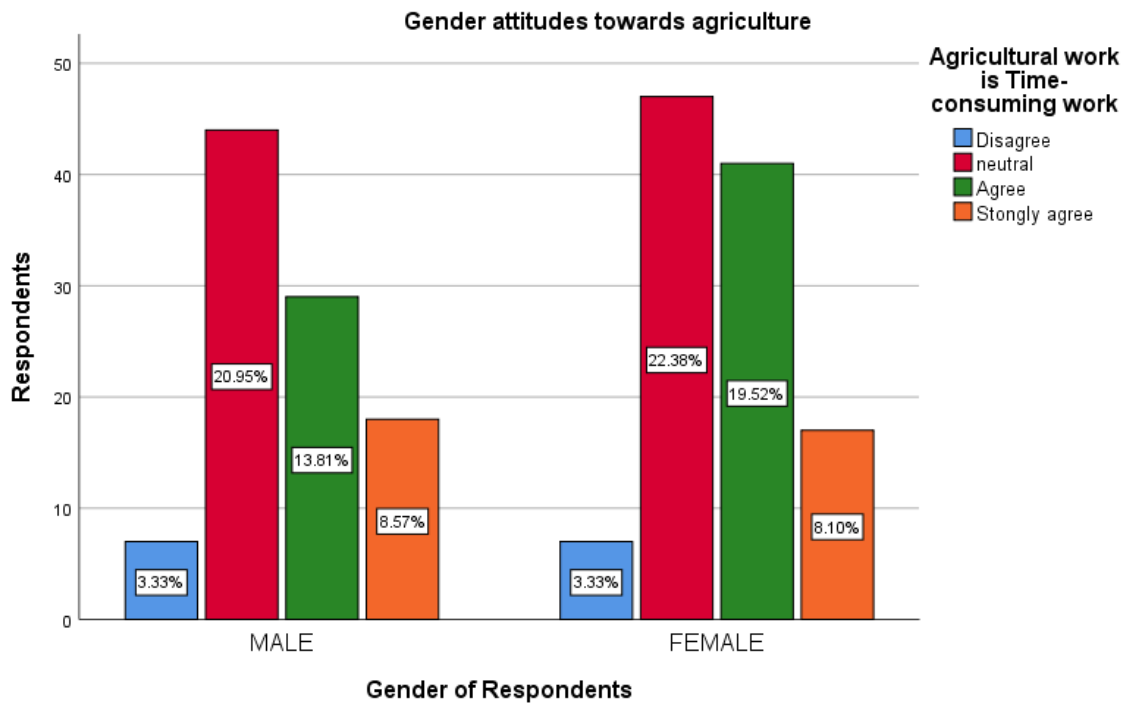


Figure 07: Gender attitudes towards agriculture (Time-consuming work)

Source: own survey

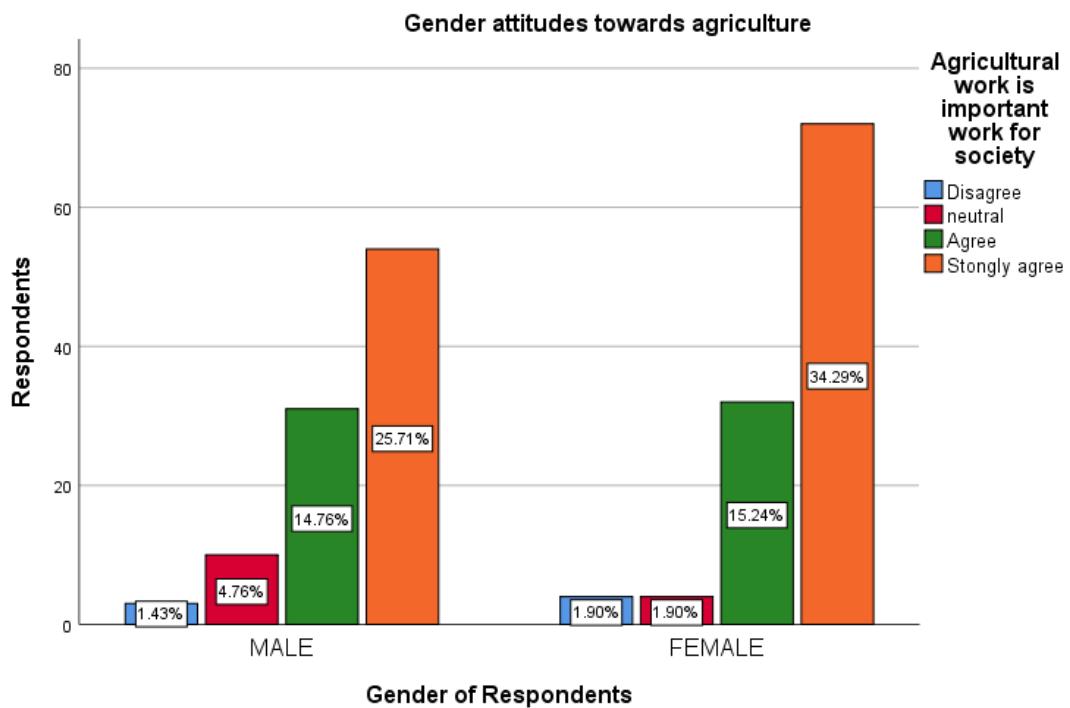
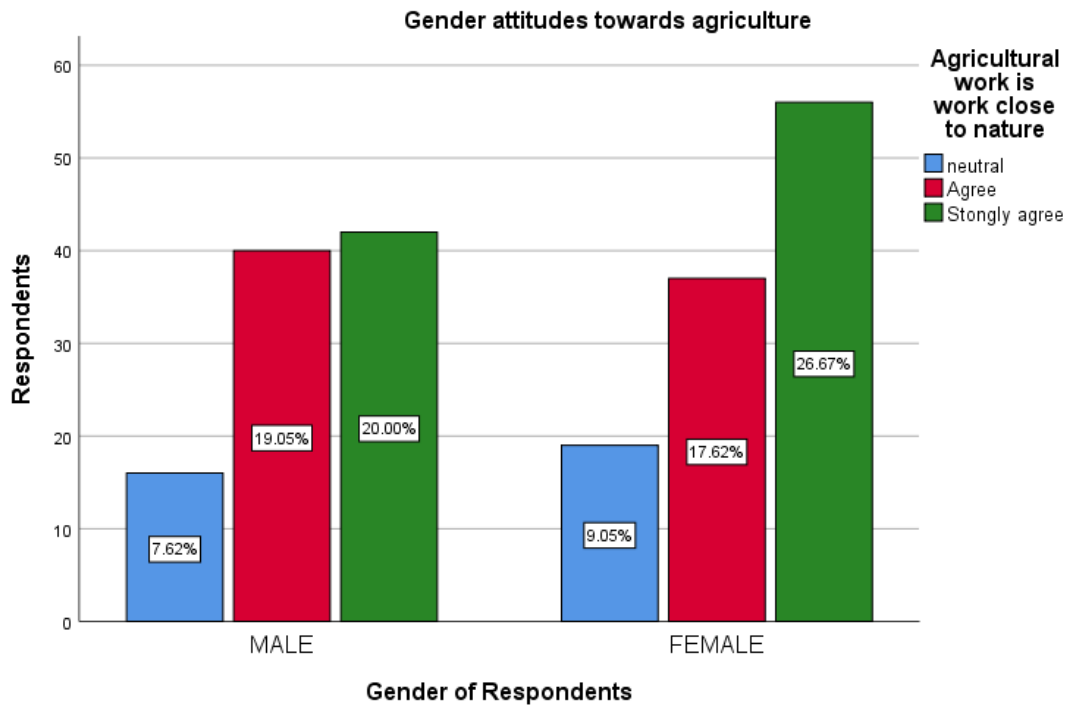


Figure 08: Gender attitudes towards agriculture (Important work for society)

Source: own survey



Source: own survey

Figure 09: Gender attitudes towards agriculture (Work closer to nature)

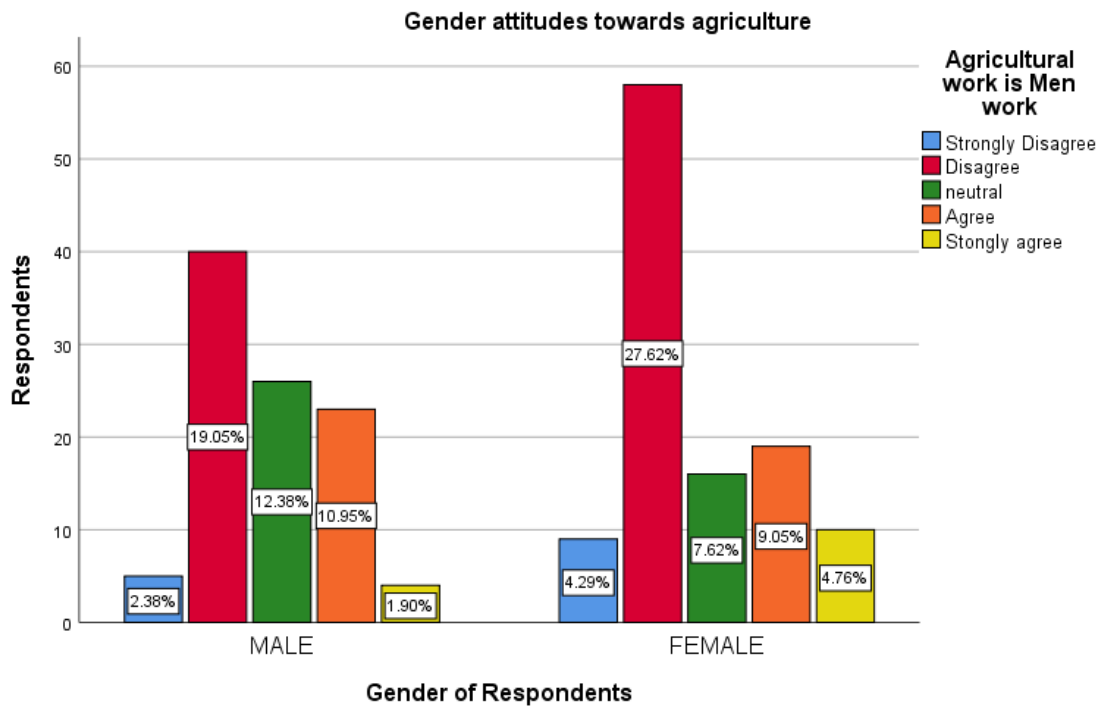


Figure 10: Gender attitudes towards agriculture (Men work)

Source: own survey

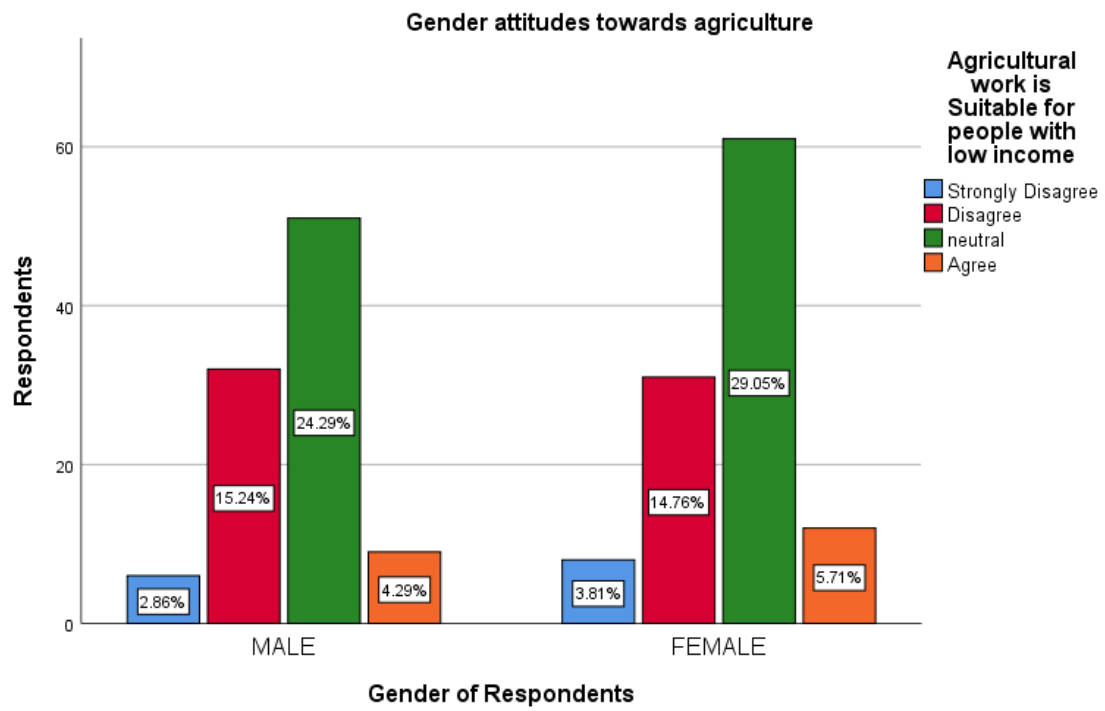


Figure 11: Gender attitudes towards agriculture (Suitable for low-income people)

Source: own survey

5.5. Agriculture Prestige

The result in Figure 12 shows us the data regarding agricultural prestige among the respondents. We can understand that more than 60% of respondents consider that agriculture as a medium prestige job for both males and females, whereas a small number of the respondent (less than 20%) consider agriculture as a high prestige job. However, more than 20% of the respondent also consider agriculture as a low-prestige job.

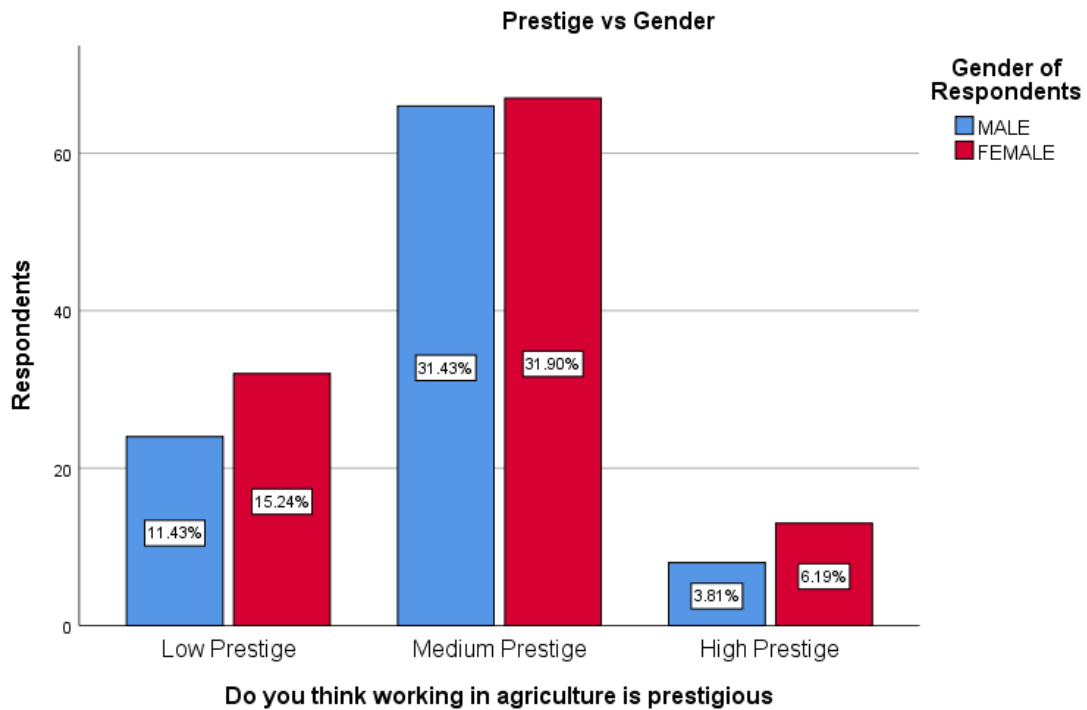


Figure 12: Considering agriculture as a Prestigious

Source: own survey

5.6. Binary Logistic Regression of Factors Affecting Intention To Work In Agriculture

We have conducted logistic regression to see whether the predictor variables are shown in Table 1 significantly predicted the intention of the respondents to work in agriculture. The Omnibus Tests of Model Coefficients (Table 05) specifies that, when all predictors or variables are considered, the model or equation is significant $\chi^2= 20.18$, $N= 210$, $df= 12$, $p< .064$

Table 05: Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	20.185	12	0.064*
	Block	20.185	12	0.064
	Model	20.185	12	0.064*

*=significant at $p<0.05$

Source: own survey

Table 06: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	249.838 ^a	0.42	0.52
a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.			

Source: own survey

The model also shows that (Table 05) explained the relationship between 42 % (Cox and Snell R square) and 52 % (Nagelkerke R square), pointing towards the variance of the intention to work in agricultural status and correctly classified 66.7% cases shown below in Table 06.

Table 07: Classification Table

Observed			Predicted		
			Do you have the intention to work in agriculture in the future		Percentage Correct
			No	Yes	
Step 1	Do you have the intention to work in agriculture in the future	No	16	56	22.2
		Yes	15	123	89.1
	Overall Percentage				66.2

a. The cut value is .500

Source: own survey

Table 08: Results of logistic regression analysis of factors affecting intention to work in agriculture

According to the binary logistic regression model, we have found four (04) independent variables that have a significant contribution to the model. These variables are – Attraction to the rural way of living, the perceived prestige of agriculture, influences of friends, friends influences to study agriculture and if the respondents have farming experience from training. The strongest among the variables is the 'Contentment to the rural way of living,' which indicates the intention to work in agriculture with an odds ratio of 31.76. It also represents that the respondents who have positive content with the rural way of living are most likely to choose agriculture as a profession. The result is significant at the $p = 0.013$

We have also discovered that other variables such as the occupation of father and mother, family ownership of any agricultural land, gender, and future living preferences have no or little significant effect on the intention to work in agriculture. As a result, they are statistically void or insignificant.

Friends influences to study agriculture is the second significant variable with an odd ratio 1.037 although the beta is negative 0.022. that indicates respondents who doesn't have

any influence from their friend would like to study agriculture. the result is significant at $p = 0.014$

The Third significant variable is the 'Farming experience before entering the university from training.' With an odd ratio of 30.70, this variable indicates that respondents who have prior farming experience before entering the university are more likely to work in agriculture. The result is the significant result at $p\text{-value} = 0.046$.

As for the last significant variable, which is 'The perceived prestige of agriculture,' the result indicates that it has an odd ratio of 17.86, meaning that an increase in one unit causes the respondent to choose agriculture as their preferred job. Besides, the result is also significant at $p\text{-value} = 0.062$.

Table 09: Results of logistic regression analysis of factors affecting intention to work in agriculture

Factor	B	S.E.	P- Value	Odd Ratio
Gender	-0.502	0.319	0.116	0.606
Age	0.049	0.045	0.273	1.050
Father Occupation	0.515	0.355	0.147	1.673
Family Income	0.177	0.234	0.451	1.193
Family Size	0.111	0.078	0.156	1.117
Land Ownership	0.271	0.431	0.530	1.311
Experience Family Farming	0.071	0.519	0.890	1.074
Experience from Training	1.122	0.563	0.046**	30.70
Perceived Prestige of Agriculture	1.127	0.605	0.062***	17.86
Attraction to rural way of living	0.569	0.229	0.013**	31.76

Parents Opinion towards agriculture jobs	0.036	0.244	0.928	0.978
Friends Influence to study agriculture	-0.022	0.152	0.014**	1.037

*-significant at P<0.01, **=significant at P<0.05 and ***= significant at P<0.1

Source: own survey

Table 10: Hypothesis testing of factors influencing intention to work in agriculture

Table 08: Hypothesis testing of factors influencing intention to work in agriculture			
Hypothesis	Significant	Not significant	Statistical statement
Gender is not responsible for impacting the perceived level of the reputation of the farmer's occupation.		✘	The null hypothesis could not be rejected
Father's occupation as a farmer increases the probability of students intending to work in agriculture.		✘	The null hypothesis could not be rejected
A mother's occupation as a farmer increases the probability of students intending to work in agriculture.		✘	The null hypothesis could not be rejected
Family income increases the probability of students intending to work in agriculture.		✘	The null hypothesis could not be rejected
Family ownership of agricultural land increases the probability of students intending to work in agriculture.		✘	The null hypothesis could not be rejected
The future living of respondents increases the probability of students to intent to work in agriculture.		✘	The null hypothesis could not be rejected
Farming experience increases the probability of students to intent to work in agriculture.	✓		The alternative hypothesis is accepted
Contentment to the rural way of living to increase the probability of students intending to work in agriculture	✓		The alternative hypothesis is accepted
The perceived prestige of agriculture.	✓		The alternative hypothesis is accepted
Parents' opinions regarding the agricultural job increase the probability of students intending to work in agriculture.		✘	The null hypothesis could not be rejected

Friends' influence on studying agriculture increase the probability of students intending to work in agriculture	✓		The alternative hypothesis is accepted
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Source: own survey

From table 10, we can see only four hypotheses are accepting the alternative and for the rest null hypothesis could not be rejected.

5.6. Qualitative Results: Reasons to Study Agriculture?

Table 09: Summary of answers related to the main reason for studying agriculture

Answers	Number of respondents	Percent	Cumulative Percent
Benefits and compensation in agriculture	25	11.9	11.9
There are many opportunities for young entrepreneurs	19	9.0	21.0
Agriculture is more diverse now than ever before, offering a wide variety of jobs available.	28	13.3	34.3
Agriculture is not a risky sector to venture into	18	8.6	42.9
My own family land and I want to grow my own business	26	12.4	55.2
Exiting field of business	19	9.0	64.3
No farmer, no food, no future!	19	9.0	73.3
Agriculture is our past, present, and the future	19	9.0	82.4
I like plants and animals	20	9.5	91.9
I want to follow my parents' firm	17	8.1	100.0

Source: own survey

Our main objective of the study was to explain why or what factors motivate the students' decision to work in agriculture? Therefore, we dedicated part of our questionnaire to investigate and extract the reasons behind choosing to study in the agricultural field in the first place. The result in Table 09 shows that 28 students want to study agriculture because

this industry is more diverse, offering lots of employment opportunities. 25 Students said that the benefits and compensation in agriculture are more rewarding. Nineteen students revealed that agriculture is a sustainable industry with no farmers. There would be no food for us. Another 19 students stated that there are a lot of opportunities for young entrepreneurs. Lastly, 19 students said agriculture is not a risky sector with more prestige than other industries. The three main factors are benefits and compensation, and agriculture is now a more diverse job field, and the family owns land that influences youth to study agriculture.

6.0 Discussion

6.1. Descriptive Statistics

Firstly, the descriptive characteristics of the samples are discussed in this chapter. According to our result, 46.7% were male respondents, and 53.3% were female respondents. Among the respondents, 65.7% respondent wanted to work in agriculture, whereas 34.3% had no interest in working in agriculture (Table 2). The respondents who didn't commit to agricultural work wanted to pursue different career choices, such as a career in the industrial sector, fashion, IT, and medicine. However, those who were interested wanted to become farm managers of large and small agricultural companies (Table 2).

We have also found out that 56% of the respondent's father's occupation was agriculture. On the other hand, 79% of the respondent's mother occupation was not agriculture. Besides, a significant part of the respondents (79%) owned agricultural land, whereas only 21% didn't own any land. As a result, we can say that the result is a valid one since the most common profession category in Bangladesh is the civil servant profession due to extensive involvement in public sector employment, equaling 55 % of all employment in 2014 (Meyer-Sahling et al. 2019).

Furthermore, 50% of the respondent said that they had prior farming experience, while the remaining 50% didn't have any experience at all. Surprisingly, 22.9% of respondents said they had gained the farming experience due to owing agricultural land from family. However, 21.9% of people reported that they learned and gained experience from the training courses and other relevant agricultural work.

As for the contentment to the rural way of living (a significant variable for our study), 46% of respondents said that they were attracted to the rural way of living. However, 53.3% declined to that kind of living. Those who didn't want to live by the rural way of life might be for different reasons, including the lack of services in the rural areas or the transportation problems. (Berg & Ihlström 2019)

We have also analyzed the faculty-wise intention to work in agriculture. And we have found out that the respondents belonged from four different faculties Faculty of Fisheries Aqua & MS, Faculty of Agribusiness, Faculty of Agriculture, and Seed Technology in Sher-e-Bangla Agricultural University (SAU). Therefore, the students from Seed

Technology are less likely to work in agriculture, whereas the students from the Faculty of Agribusiness are more interested in working in agriculture in the future. This is because the students from this department understand that agriculture is a vibrant industry with lots of employment opportunities in Bangladesh. They are directly exposed to how the agricultural business is conducted in the country as well. (Novanda et al. 2020)

Not to mention, the agricultural industry offers a better compensation package with progressive career opportunities and a never-ending need and demand for agriculture. In that sense, those who are not interested should be aware of the great opportunities that agricultural work offers. (Mahboob & M. 2014) We can make them aware of the industry by conducting seminars, symposiums, and workshops on different agricultural prospects and opportunities.

As for the attitudes towards agriculture, 33.3% of respondents denied the fact that this is dirty work (Table 5). However, 30% of respondents strongly agreed that the work is undoubtedly hard work (Table 6). This result is in line with the study conducted by (Yeboah et al. 2020), where they cited that since agriculture is hard work, they would instead go for current jobs where physical labor is not needed.

Additionally, only 10% of respondents agreed that agriculture was a low-income job, whereas 26.6% of respondents disagreed with the fact (Table 7). In that case, this result does not validate the result conducted by (Alam et al. 2009) in Bangladesh, in which they mentioned that agricultural work is not profitable to work.

Finally, a massive number of respondents (60%) said that agricultural work is a significant work where they can build their long-term career. Only 3% of students denied the fact as they didn't believe this industry can give them a better career opportunity in the long term.

6.2. Binary Logistic Regression

We have also scrutinized the data collected from the sample using a binary logistic regression model. Our results indicated that there are four significant independent variables that contribute to the model significantly. These variables are an attraction to the rural way of living, the perceived prestige of agriculture, and if the respondents have farming experience from training. (Asadullah & Rahman 2009)

The most vital variable – Contentment to the rural way of living, revealed that the respondents attracted to the rural way of living are 1.1125 times more likely to work in the agricultural industry. Besides, Farming experience before entering the university has a significant say in choosing agricultural work as the respondents are 1.115 times more interested in joining this industry.

Note that this result validates the study conducted by Adedapo et al. (2014) in India and (M & Sekumade 2013) at the Faculty of Agricultural Sciences in Ekiti State University in Nigeria. That study revealed that having experience is significant because agricultural work belongs to applied science with outdoor activities.

The friends influences shows another vital results that its will reduce the influence 1.14 times if they want to study agriculture as we found out that beta is negative but p-value is significant.

Finally, the third significant variable stated that the respondents who consider agriculture as a prestigious job are 1.135 times likely to choose agriculture as their preferred career option. However, many countries found this a negative result. (Gregorio et al. 1997) We have also found other variables, including father and mother's occupation, family ownership of agricultural land, gender, and future living preferences, insignificant. In that case, they are statistically invalid and do not contribute to the binary logistic regression model.

6.3. The Limitations of the Study

The limitations of the study are as follows:

- Since the number of respondents was only 210, we had a low number of considerations.
- The sample size was not sufficient for statistical measurement.
- There was a lack of interest from the respondents to fill out the questionnaire.
- There were conflicting and biased answers with vague ideas generated from the questionnaire results.

7.0 Conclusion and Recommendation

The main aim of this study is to figure out the significant factors that influence the intention to work in agriculture among the students of Sher-e-Bangla Agricultural University in Dhaka, Bangladesh. Broadly speaking, the main objective of this study is to identify why or why not the youth of Bangladesh want to work in the agricultural industry.

The results of the study revealed that the respondents have different influencing factors, including differing attitudes and perceptions regarding the prestige of agricultural work. The respondents disagreed with the fact that agriculture is dirty work with a focus on men's physical labor. However, most of the respondents do agree with the fact that agricultural work is hard and time-consuming work.

Furthermore, the results indicated that the students who have prior farming experience, especially the experience coming from past training, are more interested in working in agriculture. Not to mention, a good number of respondents did not agree that agriculture was a low-income work. Besides, many respondents thought that agriculture is a prestigious job with more prospects and opportunities. Also, the students who are more interested in rural life have the highest probability of choosing agriculture as their preferred career option. The results extracted from the regression model provided us with four significant variables that heavily influenced the intention to work in agriculture in the future. They are farming experience, attraction to the rural way of living, and the perceived prestige of agriculture.

Based on these findings, we recommend promoting and implement an awareness-building campaign like – 'Agricultural Inclusion Program' to raise and present the impactful opportunities that the agricultural industry can offer in Bangladesh. In doing so, we would be able to identify and motivate the students who are interested in the agricultural study. Not to mention, those who are not interested would have the opportunity to experience first-hand how agricultural work can shape the future of humankind with its sustainability and progressive career benefits. Finally, we could map out a plan to reinvigorate and restructure the existing agriculture industry to ensure the people involved in this sector feel secure. At the same time, the students who are pursuing an agricultural degree in university can become a part of the new agricultural inclusion campaign.

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