

Gender Roles and Culture: Female Students' Interest in Information Technology Major and Career

Graciela Queen Wijaya

English Department, Faculty of Humanities and Creative Industries, Petra Christian University,
Siwalankerto 121-131, Surabaya 60236, INDONESIA
E-mail: gracequeenw@gmail.com

ABSTRACT

Stereotypes has been ingrained in the society for a very long time. According to Daniel Katz and Kenneth Braly (1933), stereotyping guides to racial discrimination just after people respond to a particular group and assign the characteristic of the group emotionally. Cultural expectations have dominated societies around the world, and become an obstacle to women, including in career. However, they start to break down the barriers to show how traditional gender roles belong in the past. Therefore, in college majors, they started to enter the male-dominated majors. This research aims to find out what cultural values do the female students believe related to gender roles and its relationship with their chosen major and career. The theory that will be used is gender roles. A qualitative approach will be used by interviewing and collecting all the data from the students who are majoring in Informatics Engineering and Business Information System (SIB) in Petra Christian University.

Keywords: gender roles, non-traditional career, male-dominated majors, education, career choice

INTRODUCTION

The world has been filled with different cultural traditions and stereotypes. Family, schools, friends and the media are crucial agents around the society when people learn about stereotypes around them. In gender roles, women and men have different roles. Mother has the rights and obligations to raise children and the father needs to earn a living for the family. Additionally, there is an old saying that is considered as the best advice parents could give to their daughters, passed down from generation to generation, "a woman's place is in the well, kitchen and bed." In fact, it is one of the most serious issues in Indonesia. According to the 2020 World Economic Forum (WEF), the Global Gender Gap score based on population is at 68.6%. From the score ranges from 0.00 (imparity) to 1.00 (parity), Indonesia scored 0.700, making it 85th place out of 153 countries.

Traditional gender roles have influenced how society views aspects of life, including occupation, or known as Traditional Jobs. The male-dominated occupations are seen as having more respect, higher pay, and more fringe benefits. Even though women have a career, there are still traditional jobs in society. In 2016 Central Bureau of Statistics, out of 17 occupational sectors, female workers only dominate three sectors (health and social workers, other service sectors, and education) with a percentage of more than 60%. The men who work in female-dominated jobs and vice versa will most likely be perceived as less masculine or feminine (Hedreen, 2019). However, nowadays, women start working and people start to break boundaries by stop viewing female jobs as less credible and not looking at occupations based on gender, but their interests. Based on the Central Bureau of Statistics, the Labor Force Participation Rate in Indonesia increased 0.24% to 67.77% in 2020. The male labor force fell, but women increased by 1.32% to 53.13%. However, the male LFP decreased 0.84% to 82.41%. (Central Bureau of Statistics, 2020).

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Before starting their career, students who have just graduated from high school usually start thinking about continuing their education to a bachelor's degree. The major choices are various, depending on what career they will pursue in the future, although not all of them have careers according to what they have learned in college. Many of the females have already considered entering male-dominated majors such as engineering.

In this instance, the researcher will find out about how traditional gender roles affect women's career/majors' choices. There must be a certain reaction of agreement or disagreement from the family or society when a woman decides to take the male jobs or majors. It is interesting to know about it since there are still few in Indonesia who take the majors.

Based on the background, the researcher intends to find out about what cultural values do the female students believe related to gender roles and the relationship between the tradition and the chosen careers/majors in engineering. The study will benefit some people. First, the future researchers. The findings may be used by future researchers who will take related research. Second, students, who are majoring in engineering are the direct recipients of this study. They will know how their choices to choose male-dominated majors affect society and the culture. The theory that will be used in this research is about Gender Roles since the study aims to find out how cultural values and traditions of the interviewees' families affect the interviewees in deciding their major and career choices.

The researcher will interview five females from Sistem Informasi Bisnis (SIB) – Teknik Informatika (Informatics Engineering) students in Petra Christian University batch 2017 and 2018. The reason for choosing this major is because the female students are reachable since it has more female students than the other engineering majors.

GENDER ROLES

Belief and assumption of an individual or groups about gender roles will affect their expectation toward societies, whether it is male or female. People will learn about what appropriate gender behaviors are suitable from the societies, which are the results of relation between an individual and the environment around him/her about gender roles (Blackstone, 2003). Social roles are constructed from particular traits, statuses, or values in society. Most people in Indonesia believe that females are always expected to be feminine, work full-time at home and take care of the family and children. On the other hand, men are assumed by traditional beliefs to be the head of the household and be the breadwinner.

There are still many people who still believe in gender stereotypes, in behavior, thoughts, and even at occupation. As seen in Ramaci, Pelerone, and the other researchers study about Gender Stereotypes in Occupational Choice: a Cross-sectional Study on a Group of Italian Adolescents (Ramaci et al., 2017), the data show that more males than females perceive themselves in occupations such as military, scientific/ technological, and agricultural/ artisan professions. Thus, students express professional their interests with stereotypical patterns, in particular, males prefer male occupations, such as realistic professions, while females prefer teachers and nurses, which are related to social and artistic occupations. This study also explains the findings of how environments such as parents (or family) and teachers implement the gender socialization processes that make adolescents believe in gendered jobs unconsciously. Therefore, family and teachers have a great impact and play an important role in building young people's mindset about careers since they are the closest environments to adolescents. Morgan, Gelbgiser, and Weeden (2013), in their study "Feeding the pipeline: Gender, occupational plans, and college major selection", describe occupational plans and college major selection. From the data, the respondents tell their occupational plans can explain no less than 17% of the gender differences in college major selection and as much as 52% of them, with the smaller percentages obtaining only if occupational plans are determined by work-family goals,

coursework, and academic performance in high school. They find that it is not simply that women are disproportionately leaving science, but also those female students who, as seniors in high school, show interest in entering STEM (Science, Technology, Engineering, and Mathematics) occupations are abandoning majors that lead to these occupations in favor of the STEM-related majors.

METHOD

The method for this research is a qualitative approach, where there will be an interview with five female students from Informatics Engineering and Business Information System from batch 2017 and 2018. The reason for choosing the major is because this major is related to science and technology which is associated with men. It is also because it is one of the majors that have fewer female students but still reachable since there are more females in every batch. The steps are choosing suitable informants, preparing for the interview, such as making some questions related to the study and schedule interviews. After the preparation, the interview will take place according to the predetermined schedule. The interview results will be arranged and analyzed based on the theories applied for the study.

FINDINGS AND DISCUSSION

Female Roles

In traditional female roles, women or girls are usually expected to do house chores or stay at home. Generally, in traditional female roles, women are supposed to be at home, taking care of the family and making sure that everyone is happy. Traditional female jobs are related to some women's traits or behaviors like nurturing (e.g., maid, nurse) and other characteristics such as gentle and emotional (Eagly et al., 2000).

Four out of five informants admitted that they did not do house chores because of their role as women, only one thought that house chores should be done by women. Although they do not have to be women, they are usually expected by their mother to clean the house, for instance, washing dishes, sweeping, etc. The first informant said, "Jadi prinsipnya kalau kamu bisa ya gpp gitu. Lek gak bisa ya jangan dipaksa gitu" (So the principle is if you can, then it is okay to do it. But if you cannot, do not force yourself). The other informant has more or less the same opinion about house chores "Misalnya mamaku keluar, jadi aku yang bersih-bersih. Ga pasti gitu, jadi tergantung keadaan aja" (If my mom is out, I will be the one who cleans up. It is uncertain, depends on the situation). Hence, it depends on the informants' situation or the house situation, who is in the house. Three of them felt that house chores were not mandatory because they already had maids even though two of them no longer used maids. Considering there are maids, they do not need to do cleaning at home unless the maid returns to their hometown. Like one of the respondents said, "kalau ada pembantu malah males gitu. Semuanya sudah dibersihkan gitu" (if there is a maid, I will be lazier because everything has been cleaned). She also mentioned when she was trying to help her maid, her mother suddenly prevented her from doing it by saying "wes-wes malah tambah ngerepotin" (it's enough, you're even more troublesome). When there are no maids, they need to clean the house, not because of their responsibility as women, but because no one is cleaning the house, they have to clean it with their parents (usually with their mother). One of them who no longer had a maid said that she was struggling to get used to cleaning the house. "Kalau awal-awal disuruh karena kan belum terbiasa. Tapi kalau sekarang sudah terbiasa, sudah ngerti harus dibersihkan, nyapu ngepel" (At first, I was asked to do it because I was not used to do it. But now I already know that the house is needed to be cleaned, like sweeping or mopping).

Homework that is done by the four informants is erratic, more flexible and there is no roles division of tasks. However, among the 4 informants, there is one informant who believes that

house chores should be done by women. She does not have a maid and from a young age, she has been educated to be able to clean her own house and help her parents. She said that she usually does housework with her sister, such as sweeping, mopping, and washing the dishes. When she was asked whether her mother also tells her brother to clean the house, she stated that her mother rarely asks her brother because he is a boy. "Kalau yang cowok engga sih. Mungkin karena anak cowok jadinya jarang ya" (My brother is not asked. Maybe because he is a boy). Even though there is no division of roles, she, her sister, and her mother must help clean the house every day. Since she is a Balinese, the gender roles applied in her family are different with what the result of a study conducted by Wiasti (2012). The study stated that after the Balinese knew the meaning of Gender Equality and Justice, 49.1% of them stated that there was a change in their behavior in the household. On the other hand, those who stated that there was no change, generally had implemented it before even though they had never heard of it and did not know the meaning of gender. It means that most Balinese families already implement gender equality where there is no significant difference in the roles of women and men. Not only housework, in traditional female roles, women at home are usually also associated with their ability to cook. The five informants said that they are not required to be able to cook at home, but that they can learn to cook if they want. Three of them said that they can cook because of their interest in cooking. One of the informants stated that she was interested in cooking since the beginning of the COVID-19 pandemic. The other two said that they have been interested in cooking for a long time, sometimes they join their parents or maids cooking. One does not cook because she is not interested much at all since her mother does not cook too often, "kita lebih sering beli makan di luar soale" (we usually order food outside). Only one informant, who is the informant from Bali, said that she has to cook because of her role as a woman. Normally, mothers become role models for their daughters. However, when the informants were asked about their mothers, only two of them claimed that their mothers are good cooks and mostly cook at home. It is possible that they are also influenced by their mothers. Even so, the five informants said that although their mothers could cook or could not cook, they were not required to be able to cook. Inasmuch as they can buy the food outside, or the mother cooks at home, they do not need to cook. But if they like to cook, they can cook for the family members.

Male roles

Not only female roles but several things are also believed by informants related to male roles. Traditionally, for men to be masculine, they are expected to display attributes such as strength, power, and competitiveness, and less openly display emotion and affection (especially toward other men) (Fawkner, 2012). They usually do not stay at home and do physical activities such as lifting heavy objects.

The five informants have brothers, so they also shared what their brothers usually do at home. Four out of five informants said that the males at home can do house chores even though they do not have to. They said that from a young age, their parents had taught their brothers to clean the house, even though it is not their responsibility. One of the respondents said that because her brother is usually surrounded by females (the respondent herself, her sister, and her mother) at home, he is influenced to do housework, and surprisingly, her mother does not prevent her to do that. She also mentioned what her brother does every day, "dia nyapu rumah, di halaman juga kadang ikutan. Bersihin kamar, cuci piring juga biasanya kusuruh sih" (He sweeps the house, sometimes he also joins to the backyard. Cleans the room, and usually I ask him to wash the dishes). The other respondent said that her father affects her brother to do house chores. "Jadi papaku bisa masak trus papaku juga orangnya bersih kan, maksudnya jadi kalo memang ada di rumah trus kalo ngeliat yang kotor kalau waktu papaku langsung sapu aja gitu" (So my father can cook, and he is also a clean person. When he is at home, then if he sees something dirty, he suddenly just cleans it). From the interview, it can be concluded that the males in their family who like to clean the house are influenced by the family members.

Men are usually associated with the physical activities they do. One of the informants said that their brothers usually do physical activities at home such as lifting gallons. The others prefer to mention that their siblings like playing games because one of them said that “cowok-cowok yang suka main game atau komputer-komputeran” (boys like to play games or computer). Men are also usually associated with their tendency to use logic. When asked about why engineering majors are associated with male majors, on average, they answered because men usually use their logic (meaning that they also believe that women are more likely to use their feelings).

Family values

Values are produced in every family, and they are crucial for the family members to interact with the world (Wendt, 2016). Values influence the way we think, act, and make decisions. The five informants each have different values in their families.

In terms of gender roles, four out of five informants stated that their parents do not hold on to traditional gender roles. They said that they and her brothers are not distinguished from their duties to clean the house, cook or perform physical activities. As mentioned in the Female Roles and Male Roles sections, instead of preventing their sons to do housework, the parents of the four informants sometimes ask them to join them to clean the house. One of the informants mentioned about her brother who likes to cook, “kalau yang cowok suka minta diajarin gitu. Kayak hari ini kan ajarin telur dadar, besok ajarin yang lain gitu” (my brother likes to ask us to teach him (how to cook). Today he asked me about how to make an omelet, tomorrow he will ask for something else). Another informant who used to have a maid explained what she and her brother did when their maid quit her job. “Dulu pertama kali gak ada pembantu dia yang nyapu, aku yang ngepel. Tapi gak tau tambah lama dia makin jarang” (When the first time we have no helper, he swept while I mopped. But as time goes on, he is getting rarer to do housework). However, unconsciously, the parents of the four informants still believe in gender roles. It can be seen from when their parents prefer women to do housework. One of them, whose parents have a family business, said that “Kebanyakan sih aku sama mamaku. Soale dee bantuin toko gitu” (the housework is mostly done by me and my mom because my brother helps at the shop”. The other informants mentioned that although their brothers are sometimes asked to help their mother, their mothers do not force them and instead ask the informants. Some of their brothers were ordered to do more physical activity such as lifting the gallons. The remaining one informant claimed that her family believes in traditional gender roles. Her mother, who is a housewife, always tells her to clean the house and cook, while her brother is not expected to help the mother.

There are several values or motives for the reasons why the four informants' families do not hold too many traditional gender roles but still ask their children, both boys, and girls, to help them at home. According to Prentice and Carranza (2002), women are supposed to be cooperative while men are supposed to be independent. The first informant said that her parents want their children to be helping people when they grow up. She said that, “Sebenarnya kalau mamaku mikir kayak anak-anaknya itu isa bantu orang lain gitu sih” (Actually, my mother wants her children to like helping other people). The second informant claimed that she and her siblings are expected to be an independent person by saying “kita bukan tuan raja yang harus dilayani 24 jam, gitu sih biasanya kata papa sama mamaku” (We are not the kings who have to be served 24 hours, that's usually what papa and mama said). On the other hand, the third and fourth informants stated that their parents want them to be more responsible at home. For example, one of the informants was asked to be responsible for her house since there is no maid at her house; or they are told to at least clean their room.

Parents Involvement in Decision Making

In making decisions, the five informants admitted that their parents were not too involved in choosing their majors or future careers. They said that her parents immediately agreed to their choice without suggesting any other option than her daughter's decision.

Two informants said that even though they have the freedom to choose, their parents still give them advice or suggestions for their future. For instance, one of the informant's parent told the informant to be responsible for her major choice by saying, "kalau kamu mau yang mana, mau jadi kayak apa, asalkan kamu bener-bener niat dan kedepannya kamu akan kerjakan itu ya silahkan" (which major do you want, what do you want to be, as long as you really mean it and in the future you will do it, then just do it). It means that her parents want her to be responsible for everything that she already chose. The other informant's family is family-oriented, it can be discovered from when she said that her parents suggested her to work in her family's or relatives' company. It is mentioned by an article by Edira Putri (2018) about Indonesian Culture that Indonesians tend to keep tight relationships with members of their family, and it is not It does not mean they are dependent, but it just simply to show family values in Indonesia. The other three informants said that their parents let them choose without being bothered by their parents. The three said that their parents only agreed to their choice and do not give any suggestions about their future or their choice. "Oh yaudah jalani aja yang penting tanggung jawab gitu" (Okay, just go and you have to be responsible), said one of the informant's parent. From the interview, it can be concluded that from the roles and values of their family, all of the informants are expected to be independent and responsible toward their choice.

Although some were given and some were not given advice, from the stories of the five informants, parents are still important people to know what they will choose and do in the future. As mentioned before, Indonesian families are family-oriented. They still need to know what the other family members do. It is different from Western families who let their children go and decide to live on their own when their children grow up.

Major Decision

From the discussion on the role of parents in making decisions, the five informants were given the freedom to make their own decisions. They have their reasons for choosing majors. Although parents are not involved in decision-making, there are some whose parents indirectly inspire them to take the major.

Their choice is not dependent on traditional female jobs, they focus more on their interest. They said that one of the reasons why they took this major is because they like math. However, each of them has another different reasons. The two informants said that they initially did not have a target when they were going to make a decision. They have dreams, but their parents never encourage them to pursue their dreams and the parents never expect their children's future. One of them said that one of her inspirations came from her mother who is also a programmer although she was not interested in it. This reason shows that there is no barrier between male and female roles since she has a mother who also does male jobs. Not only herself but also other informants said that the main reason for choosing this major was the work of her parents. Since she lives in East Nusa Tenggara, and she is concerned with the condition of her parents' business which is less technological. She wants to continue and improve her parents' business in terms of IT. In other words, her choice is also affected by where she lives. It is also true that she is not influenced by any stereotypes since previously, she mentioned her father who also does house chores.

Another informant said that she followed the trend when she chose this major. Cited from Kompas.com, according to Laman Prakerja (2020), there are 10 most-searched jobs in Indonesia: (1) Retail sales, (2) IT-software, (3) General/financing accounting, (4) Marketing/business development, (5) Sales-corporate, (6) Banking/finance, (7) Personnel, (8)

IT-network/system/database system, (9) General staff/administration, (10) Logistics/distribution network. Since Informatics Engineering and Information Business System are major that related to IT and business, it is undeniable that the respondent chose this major.

Career Decision

After students graduate from college, they usually start working. Some work following the fields they have studied, some work outside of what they have learned. In traditional female jobs, women usually work as nurses, teachers, social workers, etc. There are also those who after work choose to get married and become housewives. However, the five informants had different answers regarding their plans after graduating from college, especially since they were studying at a male-dominated major.

Three of them do not have a specific plan for their future career. They do not have an interest in IT, and one of them even thought about changing majors. When the informants were asked, they said that their parents did not give any suggestions regarding their plans, nearly the same as when they mentioned how they choose the major. Two of them said they plan to try applying to several companies because they think it is not certain to be accepted at a certain company. For the position, they look for an IT position, just like what they have learned in college even though they do not have an interest in it. This statement is probably made because they are expected to be responsible by their parents.

One of the findings shows that one student, whose family believes in traditional gender roles, backs to traditional gender jobs. She suddenly mentioned her desire to do a job like managing letters and data, which is known as an administrative assistant/ secretary. Secretarial work is related to women's work, especially in Indonesia. Some of the reasons why secretaries are done by most women are because women are considered more conscientious and talkative (Windiardsika, 2017). This could happen since she does not find her interest in the IT, moreover her family believes in gender roles and she is likely to be influenced by them.

Unlike the two informants who have a plan after they graduate. One of them has a family business and she said that she wants to continue her family business and make improvements to her family business from IT since she lives in East Nusa Tenggara, which is still lacking in technology. She does not mind too much when entering a male-dominated major, she puts her focus more on her future goals. The other informants said that she wants to work in an office, in the IT field to collect experiences. Her insight toward her job is influenced by her parents who gave her suggestions.

CONCLUSION

Cultural traditions have been around for a long time and have influenced everyone's thoughts and how people treat others based on gender. Gender differences in society eventually spread to all aspects of people's lives, including in choosing studies and jobs. Each gender has its traditional jobs which are influenced by traditional gender roles. Before working, usually people will start thinking about pursuing a bachelor's education. Engineering majors, which are usually dominated by men, are now starting to be in demand by women. From the Five female informants from Informatics Engineering or Business Information Systems (SIB), almost all of the informants believe in gender equality even though there is still the influence of traditional gender roles. There is only one informant who claimed to still believe in traditional gender roles. They choose their majors and careers without any influence from gender roles. They do not mind if they later work in the IT sector, although one of them who believes in traditional gender roles admits that she wants to do a job as a secretary, which is one of the traditional female jobs. From the result, young women in Indonesia still believe in traditional gender

stereotypes unconsciously, even though some start to think that men and women can be treated exactly alike. However, when a woman finds out her interest in STEM (Science, Technology, Engineering, and Mathematics), which is usually associated with men, she may start to not care about assumptions of gender roles. But if she finds that she is not passionate about STEM, she will return back to traditional stereotypes.

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