

# Exploring gender differences in selection of subjects at higher education levels in the Maldives

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*This paper sheds light on the higher education system of the Maldives from the perspective of gender equality between men and women. The findings presented in the paper are based on the results of a survey conducted among students enrolled in higher education institutions and on desk-research of relevant policy documents. The study explores the reasons for patterns of enrolment, reasons for selection of a particular study field and influence over the decision for selecting a discipline to study in higher education. Choices of whether they are simply down to the interest of the individuals or a matter of availability and affordability are explored in the research. Pressure from family, peers, work environment, stereotypes of masculine and feminine ideology, and availability of employment opportunities associated with particular disciplines are also discussed within the framework of this study in order to understand their relevance to deciding subject choice in higher education. The research shows that students' decisions are affected by reasons beyond subject or discipline. The study shows that a gendered dichotomy is very much prevalent in the higher education system of the Maldives.*

*Keywords: Gender, equality, subjects, higher education, discipline*

## **BACKGROUND TO THE STUDY**

Gender in this study is defined “as a social phenomenon, and as a social construct, as distinguished from sex which is biologically determined” (Momsen, 1991). Since gender is a social construct, gender equality is also broadly defined according to contextual definitions. Gender equality does not mean that men and women should become the same but that a person's rights, responsibilities and opportunities should not depend on whether they are born female or male (UN Women, 2020). It is important to understand the concept of gender mainstreaming when discussing balance in social systems. Gender mainstreaming is the process of assessing implications for women and men of any planned action, including legislation, policies or programs in all areas at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring, and evaluation of policies and programs in all political, economic, and societal spheres so that all people

*Exploring gender differences in selection of subjects at higher education levels in the Maldives*

benefit equally and inequality is not perpetuated (United Nations, 1997). The persistence of gendered paths in career choices have been reflected in the 2017 Global Gender Gap Report of the World Economic Forum (WEF), which states that, on average, men are underrepresented in the fields of education, health, and welfare whereas women are underrepresented in the Science, Technology, Engineering, and Mathematics (STEM) fields (WEF, 2017). Another study which shows the prevalence of sex segregation in higher education was by Gerber and Cheung (2008), which shows that, despite the increase in women in higher education, men and women are still concentrated in different educational programs and occupations (Barone 2011, Gerber & Cheung 2008). Mendick (2013) put forward three accounts to explain the gendered subject choices: biological account, social-psychological account, and feminist sociological account. Aigbomian's (2002) study, showed that it was simply a result of the 'capability' of the sexes. He observed that boys performed better than girls in science, technical, and Mathematics subjects.

A useful integrative framework for studying gender pathways and decision making draws on assumptions developed within an ecological systems perspective by Bronfenbrenner in 1977, life course theory by Elder in 1978 and socio-cultural Expectancy-Value Model of motivated choices by Eccles and Harold in 1991 (see Bronfenbrenner, 1977; and Wigfield & Eccles, 1995). Integrating these approaches can provide a better understanding of the dynamic interplay between social structures and individual preferences, values, and expectations over time and in context (Schoon, 2014). In effect, the authors argue that explanations of persisting gender differences in career choice and attainment refer to gender essentialism, socialization, outright gender discrimination and political processes. Wang and Degol (2013) offered six explanations for women's underrepresentation in STEM fields: (a) cognitive ability, (b) relative cognitive strengths, (c) occupational interests or preferences, (d) lifestyle values or work/family balance preferences, (e) field-specific ability beliefs, and (f) gender-related stereotypes and biases, because the size and composition of the STEM workforce continuously fail to meet the demand. More recent studies on subject choice have attributed the gender differences to factors such as attainment and aspiration (Parr, 2003).

Differences in 'innate' abilities and differences in preferences have been widely discussed. Favara (2012) found that grades have a major impact on choice of study. Favara argues that gender stereotyping also affects educational choices. A study by Card and Payne (2017) pointed out that readiness was a predictor of subject choice. They found that readiness to qualify to study in particular subjects plays a crucial role in progression to higher education. Subrahmanian (2005) proposed two determinants affecting subject choice: the extent to which girls and boys are streamed into determinate subjects through the way they are offered and performance in examinations or learning outcomes. Another critical argument that stems from the subject of underperformance in schools has more to do with society's norms about masculinity than with autonomy, hormones or brain structure; Pascoe (2007) stated that there are numerous examples of boys who strive for good grades as being labelled "pussies" or "fags" by their peers.

A significant proportion of the gender gap in earnings can be attributed to gender differences in subject majors. According to Jacobs (1996), choice of majors played a

larger role in career earnings, although they may influence later career earnings indirectly through occupational tracking. In the 1960s, these findings were quite evident when college enrolment was low. However, given recent trends, it does not account for the disparity.

An economic model which seeks to explain the gender differences is Expectancy-Value Theory developed by Eccles and colleagues between 1980 and 2000, on the motivation and the social factors influencing gender and ethnic difference in Mathematics, science, and information technology choices (Wigfield & Eccles, 1995). Eccles and Harold (1995) are of the view that people's choices (such as course selection, college major), persistence, and performance are strongly determined by their beliefs (which are feelings of importance and interest) and an individual's self-concept that consists of his or her belief of how skilled he or she is in terms of how well they will do on the activity and the extent to which they value that activity (Eccles & Harold, 1991). Eccles and Harold (as cited in Jacobs & Simpkins, 2005) stated that an individual's personal value attached to a task is influenced by multiple factors, such as satisfaction that the individual derives from a program chosen, the major program is seen as meeting the person's short-term and long-term goals, and encouragement or discouragement from an individual's parents, counsellors, friends in the context of school authorities, administrative structure, and policy for selecting a particular program. Therefore, because gender is a social construct, this belief is usually the result that affects representation in higher education.

Peer pressure has also been observed to play a crucial role in the selection of a major. Zolitz and Feld (2017) found that women who are randomly assigned to work with women peers were less likely to select male-dominated subjects, while males, when assigned to work with female peers, were more likely to select male-dominated subjects. A study found that women in male-dominated subjects are often faced with a difficult climate on campus. Murray et al. (1999), in their research on US higher education, showed that women were marginalized or harassed, for instance, by sexualized jokes. Another study showed that role models impacted on the gender gap in subject choice. The study found that when there were female role models, it raised students' interest in science-related careers, and it sharply reduced the prevalence of stereotypes associated with jobs in science and gender differences in abilities (Breda et al., 2020). According to UNESCO (2005), teachers and educators influence the gender roles of their students and thus have an impact on their educational outcomes. "We all grow up among the influence of our family and cultures, and as teachers, we may see ourselves, rightly, in the role of instilling cultural values in the children in our classes" (Kane, 1996).

It is crucial to understand how diverse contexts such as socioeconomic, political, and cultural settings affect individual's decisions. Although the general education system in Maldives is structured to provide primary and secondary education for all students with all subjects, it does not result in positive outcomes when it comes to enrolment in higher education and in the occupational structure of the Maldives. The Maldives National Bureau of Statistics (2020) revealed higher secondary education (grade 11 and 12 of general education) is low, with gross enrolment ratio below 50. Also, more females than males are enrolled in higher education. There are 23,345 females with qualifications of Diploma and above, while there are only 13,001 males with the same level of education. In addition, the National Bureau of Statistics revealed that the youth Not in

## *Exploring gender differences in selection of subjects at higher education levels in the Maldives*

Employment, Education or Training (NEET) rate is more among females at 24.4% than males. To see it from the dimension of gender roles, there is a societal depiction associated with stereotypical roles suitable for both females and males that could have a bearing on their enrolment in higher education. As gender is a social construct, this societal depiction and biases have a considerable impact. A study conducted on depiction of roles of women and men in study materials in the Maldives in 2013 found that books of the local language and Islamic Studies focused more on gender stereotypes. Furthermore, given that colleges and universities in Maldives were established only after 2011, their expansion and inclusion is limited. A thorough investigation of the secondary factors for gender differences in selection of subjects would help policy makers understand how to better attain Maldives education goals.

### **TRENDS IN OTHER PARTS OF THE WORLD**

Worldwide, an assessment by Cambridge Assessment (2020) showed that 27.7% of females take Psychology, 24.1% Biology and 21.2% History. Only 5.3% females enrol in ICT and 6.1% in Physics. The same assessment showed that the highest male participation was found in Mathematics at 36%, followed by Business Studies at 22.6% and Physics at 20.6% (Cambridge Assessment, 2020). Furthermore, in a report published by the Institute of Physics in 2011, 6,159 girls took Physics A level, compared to 23,811 boys. In all OECD countries, girls perform significantly better at reading than boys; in Finland, Iceland, Slovenia, and Sweden, girls perform more than 50 points better in PISA than boys. In Chile, Mexico, and Korea, girls score approximately 20 points better than boys (OECD, 2015).

According to a study conducted by Achiam and Holmegaard (2000), more women than men attend higher education in Europe. However, even then, only one in three STEM graduates are female. In studying the context of the UK, Tonin and Wahba (2014) show that there is a gender gap in undergraduate Economics in the UK. According to Stevenson and Zlotnick (2018), Economics textbooks over-represent men among examples of policymakers, business leaders and even among fictional characters. The context of Spain shows similar results. Women have higher preferences and interest in the fields of humanities, social issues, and awareness, which are affected by social influence, especially of parents, and are concerned with being underrepresented or discriminated against in the field of their studies. It was also found that men are more aware of earning perspectives, family, and social acceptance when choosing their field. Gender stereotypes played a significant role (Valls et al., 2018) in an evaluation of the Dutch education system, where gender ideology shaped boys' occupational values and subject preferences, whereas, for girls, it shaped their competence beliefs. It showed that gender expectations were stricter for boys than girls and may prevent men from entering more feminine career tracks (Jaspers et al., 2016). Another Netherlands study by Thomas and Nierderle (2012) found that competitiveness was an important predictor of profile choice as gender. Their study showed that 23% of the gender difference in profile choice could be attributed to gender differences in competitiveness.

Similar to the situation in the Maldives, higher education in India has witnessed an expansion in women's enrolments in the recent past. A study of the Indian higher education system showed that family and the school were the key institutions that

shaped their choice of subject. Women's subject choices were also constrained by concerns relating to gender. According to the study, secondary factors, such as the institution, location and availability of hostel, were decisive factors (Gautam, 2015). According to Chanana (2001), women continue to cluster in subjects and disciplines traditionally regarded as "feminine", like Education, Health and Welfare, Languages and Arts. Chanana also showed that, since the expansion of jobs in Management and Chartered Accountancy in India, the representation of students, especially women, increased in the discipline of commerce. However, Engineering and Technology, Law, Commerce, and Veterinary Science remain predominantly male domains.

In the context of Pakistan, Javed (2018) stated that, often, parents impose their choice in the selection of subjects for their children without considering the interest of their children. A study conducted by Dom and Yi (2018) on the Cambodian education system found that factors, such as job market, the economic system and educational institutions, and society in general, affect women's qualifications and potential in the field of STEMS. Restricted freedom in the selection of subjects, patriarchal societal structure, social norms and culture, lack of STEM orientation from lower levels of schooling also have a significant impact on women's choice of studies at higher levels.

A study in Hong Kong showed that not only were female students less likely to take STEM-related subjects, but they were also more likely to leak out from the STEM pipeline than male students at later stages (Chan & Cheung, 2018). In studying the Malaysian context, Ismail (2015) found there is a varied difference in subject choice based on masculine and feminine roles. Furthermore, she also added that more male students represent subject choices like Engineering, Mathematics and Physics, and female students were specialized in Linguistics, Education and social sciences.

In studying why the number of male teachers was declining in the American education system, Patrick (2009) found factors such as subject matter, coaching opportunities and job opportunities affected student teachers' decisions. For those in the field, financial incentives were the determining factor. A study based in Georgia gave evidence that a number of females at tertiary education are more represented in Bachelors and Masters Programs; however, as for vocational programs, the number of males are higher. The study also showed that, in 2013, 76% of entrants who enrolled in humanitarian sciences were female, while 67% of enrolments in technical programs were male. The same study revealed that 80% of females chose literature, while 82.1% of males chose physics (Gorgadze, 2015). A study conducted by Basit Zafar (2009) showed that females care about non-pecuniary outcomes, such as gaining approval of parents and enjoying a job, while males value pecuniary outcomes, such as the social status of jobs, the likelihood of finding a job, and earnings profiles.

Studies based in Australian settings showed that subject choice in senior secondary school was related to differences in access to higher education, vocational education and training and employment outcomes (Fullarton & Ainley, 2000) Another study of how students made their subject choices (Atweh et al., 2005) observed that students make their selections based on multidimensional criteria: personal interests, perceived ability in the area, career aspirations, identified potential ability, as well as other constraints based on social factors, such as workload, peer pressure, and attitude towards the teachers. It was also found that, although most schools have scaffolding programs and activities to support students' selection of subjects, the accuracy of some information given may limit the options of students and put pressure on them (Atweh et al., 2005).

## *Exploring gender differences in selection of subjects at higher education levels in the Maldives*

The context of the Middle East shows a different predictor. In studying the relationship between gender and subject choice in the higher education system of Saudi Arabia, Alwedinani (2016) found that internalizing of gender norms played a key role, while the patriarchal structure influenced a woman's subject choice, which was very much dependent on her father. Women who come from traditional families have no say, while those who come from non-traditional families exercise their agency through bargaining, resisting, and negotiating with the patriarchal system. In studying the Israeli educational context for subject choices by men and women, Egozi et al. (2014) found that, although young women have outpaced young men in terms of enrolment in education, girls and boys continue to study in gender-typical fields of study. They found that socialization mechanisms and rational choice motivations, particularly utility considerations and failure expectations, explain up to 40% of the gender-typical curricular choices.

Similar to other parts of the world, the gender disparity was prominent in the African region. In studying the Zimbabwean model of education, Mutekwe and Modiba (2012) identified, from in-classroom observations that, while displaying the graphical content relevant to the lecture, teachers displayed gender-stereotyped occupations. A study based in Nigeria showed comparable results; that is more boys than girls preferred technology courses, while more girls than boys preferred to study science education courses (Oriahi et al., 2010). While studying the gender disparity in Rwanda, the Ministry of Education (2008) stated that there is a growing divergence in subjects studied by boys and girls at the secondary level. They discovered that, in 2005, only 30% of girls studied Mathematics while 41% studied Biochemistry. Furthermore, only 14% of students were women in Electricity and 6% in General Mechanics and Automobiles. Another study, conducted in the Ghanaian context, showed that girls' programs of study are influenced by male relations, towards programs that are perceived to be less mathematically inclined (Agbley, 2015).

Such studies give evidence that gender imbalance in subject choice is a prevalent issue in all parts of the world, and that there is a need to understand the process of decision making regarding subject choice presented to and chosen by the students. As was stated in the above background section, the literature indicates that context plays a key role in defining the social construct of gender and its associated opportunities.

### **OBJECTIVES AND METHODOLOGY**

This study explored gender differences in selection of subjects at higher education levels in Maldives. Notably, the patterns of enrolment, reason for selection of the study subject and influencing/demanding factors were investigated to examine the underlying bases for the dichotomy of the selection of subjects by males and females. The research design was both exploratory and explanatory, supported by quantitative data from higher education providers as well as from a survey with standardized questions.

The data collection techniques included distribution of semi-structured, self-completed questionnaires. The questionnaire was designed to gauge the research objectives and consisted of closed and open-ended questions. Some institutes have campuses only in the capital city of Malé. Therefore, a hard copy of the questionnaire was distributed to the participants by their faculties/schools. For those institutes which had campuses outside of the Malé City region, an online Google form was utilized to collect data. All

students studying in the institutes were asked to voluntarily participate in completing the questionnaire. A total student population of 288 filled in the questionnaire. There are five public higher education providers and eight private higher education providers in the country. To maintain this ratio, data was also collected from two private higher education providers and one public higher education provider to discern the enrolment patterns in higher education. The scope of the study was limited to higher education and does not generalize its results to lower levels of education.

## ANALYSIS AND DISCUSSION

The Ministry of Higher Education is the authoritative body of the higher education service providers in the Maldives. Up until the establishment of the current government in November 2018, there was a Department of Higher Education responsible for this role. The data for this study was obtained in 2017 and early 2018. Therefore, the Department of Higher Education has been referred to as the authoritative body. Statistical data from the Department of Higher Education provides enrolment and graduate output details between the years 2013 and 2016.

Tables 1 and 2 summarises student enrolment and graduate output information by type of representative institute and sex. It is to be noted that record keeping, and data management systems are weak in regulatory authorities. Overall, female enrolment in higher education has been higher than male enrolment from the years between 2013 and 2016. The male graduate output is higher than female graduate output between the years 2013 to 2016 despite high female enrolment. More specifically, the statistics also show that female enrolment is higher in the private sector than in the government sector. Statistics from the years between 2013 and 2016 show that there were 57,390 students enrolled in higher education both in the private sector and government sector. Out of 33,750 students enrolled in the private sector between 2013 and 2016, females represented 57%, while males represented 43%. From the years 2013 to 2016, the government sector had a total graduate output of 9,787. Out of them, 7,104 were male graduates while 2,683 were female graduates. On the contrary, in the private sector, female graduates were 5,409, while male graduates were 2,515.

**Table 1: Student enrolment in higher education by sex**

| Year/Type of Institute | Student Enrolment |      |        |      |       |            |
|------------------------|-------------------|------|--------|------|-------|------------|
|                        | Male              | in % | Female | in % | Total | Total in % |
| 2013 Government        | 3019              | 39   | 4739   | 61   | 7758  | 100        |
| 2014 Government        | 6795              | 56   | 5263   | 44   | 12058 | 100        |
| 2015 Government        | 1860              | 19   | 1079   | 81   | 9764* | 100        |
| 2016 Government        | 2755              | 72   | 1059   | 28   | 3814  | 100        |
| 2013 Private           | 3391              | 45   | 4189   | 55   | 7580  | 100        |
| 2014 Private           | 3493              | 43   | 4620   | 57   | 8113  | 100        |
| 2015 Private           | 5524              | 44   | 6895   | 56   | 12429 | 100        |
| 2016 Private           | 2207              | 39   | 3431   | 61   | 5638  | 100        |

\*gender-disaggregated data missing from one/two institutions

*Exploring gender differences in selection of subjects at higher education levels in the Maldives*

**Table 2: Graduate output in higher education by sex**

| Year/Type of Institute | Graduate Output |      |        |      |       |            |
|------------------------|-----------------|------|--------|------|-------|------------|
|                        | Male            | in % | Female | in % | Total | Total in % |
| 2013 Government        | 1502            | 69   | 685    | 31   | 2187  | 100        |
| 2014 Government        | 3492            | 73   | 1326   | 27   | 4818  | 100        |
| 2015 Government        | 912*            | 86   | 150*   | 14   | 1062* | 100        |
| 2016 Government        | 2110            | 76   | 672    | 24   | 2782  | 100        |
| 2013 Private           | 812             | 48   | 884    | 52   | 1696  | 100        |
| 2014 Private           | 677             | 43   | 901    | 57   | 1578  | 100        |
| 2015 Private           | 1026            | 33   | 2129   | 67   | 3155  | 100        |
| 2016 Private           | 569*            | 28   | 1495   | 72   | 2064  | 100        |

\*sex-disaggregated data missing from one/two institutions  
(Source: current study, 2018)

Institute A is a public higher education provider. Table 3 shows that female enrolment was higher in all programs except for Quranic Studies, Sharia and Law, and Foundation Studies. This indicates that there is a presumption associated with male and female subject choices.

**Table 3: Male and female enrolment by field of study in the Institute A**

| Year | Quran |    | Sharia and Law |    | Foundation Studies |    | Human Sciences |    | Education |     | Languages |     | Arabic Language |    |
|------|-------|----|----------------|----|--------------------|----|----------------|----|-----------|-----|-----------|-----|-----------------|----|
|      | M     | F  | M              | F  | M                  | F  | M              | F  | M         | F   | M         | F   | M               | F  |
| 2016 |       |    | 32             | 31 | 41                 | 30 | 35             | 2  | 73        | 180 | 45        | 181 | 7               | 18 |
| 2017 | 21    | 25 | 55             | 40 | 40                 | 40 | 61             | 78 | 71        | 214 | 89        | 464 | 4               | 13 |

(Source: current study, 2018)

Institute B is a private higher education provider. The table shows that except for the field of Accounting, Tourism and Information Technology (IT), all other fields of study were dominated by females between the years 2016 and 2018.

**Table 4: Male and female enrolment by field of study in the Institute B**

| Year  | Accounting |    | Business |     | HR |    | Marketing |    | Tourism |   | IT |    |
|-------|------------|----|----------|-----|----|----|-----------|----|---------|---|----|----|
|       | M          | F  | M        | F   | M  | F  | M         | F  | M       | F | M  | F  |
| 2016  | 24         | 21 | 43       | 55  | 6  | 9  | 6         | 8  | 10      | 8 | 8  | 11 |
| 2017  | 24         | 29 | 57       | 89  | 7  | 14 | 5         | 7  | 1       | 0 | 12 | 5  |
| 2018  | 5          | 0  | 30       | 37  | 1  | 2  | 0         | 0  | 0       | 0 | 6  | 6  |
| Total | 53         | 50 | 130      | 181 | 14 | 25 | 11        | 15 | 11      | 8 | 26 | 22 |

(Source: current study, 2018)

Institute C is also a private higher education provider. Table 5 shows that female enrolment was higher than male enrolment in all fields of study, except in the field of Business Studies (Business) and IT. Female enrolment in the Education sector was significantly higher, representing 66% between the years while male enrolment in the field of IT was higher at 56%.

**Table 5: Men and women enrolment in the Institute C**

| Year  | Foundation |     | Education |     | Business |     | Law |    | Tourism |    | IT  |     |
|-------|------------|-----|-----------|-----|----------|-----|-----|----|---------|----|-----|-----|
|       | M          | F   | M         | F   | M        | F   | M   | F  | M       | F  | M   | Fe  |
| 2012  | 0          | 1   | 2         | 17  |          |     |     |    |         |    |     |     |
| 2013  | 4          | 8   |           | 13  | 1        | 2   | 6   | 2  |         |    |     |     |
| 2014  | 6          | 43  | 227       | 52  | 137      | 120 | 4   | 32 | 15      | 41 | 86  | 62  |
| 2015  | 14         | 33  | 100       | 364 | 147      | 133 | 0   | 0  | 14      | 2  | 26  | 20  |
| 2016  | 13         | 38  | 40        | 190 | 131      | 133 | 0   | 1  | 6       | 3  | 25  | 15  |
| 2017  | 6          | 10  | 41        | 173 | 91       | 99  | 0   | 0  | 2       | 2  | 23  | 21  |
| Total | 43         | 133 | 410       | 809 | 507      | 487 | 10  | 35 | 37      | 48 | 160 | 118 |

(Source: current study, 2018)

Table 6 summarizes the percentage of questionnaire respondents by sex. It is observed that out of 288 respondents who filled the survey form from the higher education institutes, 103 are males and 185 are females. This reflects that 64% of females are enrolled in higher education, while there is only 36% of males enrolled.

**Table 6: Representation in higher education by gender**

| Sex    | Representation in higher education | Percentage of representation |
|--------|------------------------------------|------------------------------|
| Male   | 103                                | 36                           |
| Female | 185                                | 64                           |
| Total  | 288                                | 100                          |

Table 7 statistics show current enrolments in higher education by the field of study choice. The statistics show that the majority of students are enrolled in Education and Business Studies. Engineering, Marketing, Journalism, Building Construction, and Navigation have predominantly male enrolments, while Health, Psychology, General Foundation, Office Management, Science, Beauty and Therapy, and Economics have more female enrolments. The biggest difference between percentages are among the English Language, Human Resource Management, and Education subjects. Male-dominated IT and Law. The least difference was observed in the field of Quranic Studies, Tourism and Hospitality, Accounting and Finance, and Business Studies. This correlated with the statistics provided by the Department of Higher Education and the respective higher education providers. This trend also linked with the representation in sectoral employment by sex.

*Exploring gender differences in selection of subjects at higher education levels in the Maldives*

**Table 7: Field of study by sex**

| Field of study            | No. of males (M) | %   | No of females (F) | %   | % difference between F & M cohorts | Total | Total % |
|---------------------------|------------------|-----|-------------------|-----|------------------------------------|-------|---------|
| Health                    | 0                | 0   | 7                 | 100 | 100                                | 7     | 100     |
| Psychology                | 0                | 0   | 2                 | 100 | 100                                | 2     | 100     |
| General Foundation        | 0                | 0   | 2                 | 100 | 100                                | 2     | 100     |
| Office Management         | 0                | 0   | 2                 | 100 | 100                                | 2     | 100     |
| Science                   | 0                | 0   | 1                 | 100 | 100                                | 1     | 100     |
| Beauty and Therapy        | 0                | 0   | 1                 | 100 | 100                                | 1     | 100     |
| Economics                 | 0                | 0   | 1                 | 100 | 100                                | 1     | 100     |
| Education                 | 16               | 18  | 71                | 82  | 63                                 | 87    | 100     |
| Human Resource Management | 5                | 28  | 13                | 72  | 44                                 | 18    | 100     |
| English Language          | 1                | 33  | 2                 | 67  | 33                                 | 3     | 100     |
| Business Studies          | 28               | 44  | 36                | 56  | 13                                 | 64    | 100     |
| Accounting and Finance    | 6                | 50  | 6                 | 50  | 0                                  | 12    | 100     |
| Tourism and Hospitality   | 1                | 50  | 1                 | 50  | 0                                  | 2     | 100     |
| Quranic Studies           | 2                | 50  | 2                 | 50  | 0                                  | 4     | 100     |
| Information Technology    | 15               | 65  | 8                 | 35  | -30                                | 23    | 100     |
| Law                       | 15               | 65  | 8                 | 35  | -30                                | 23    | 100     |
| Engineering               | 2                | 100 | 0                 | 0   | -100                               | 2     | 100     |
| Marketing                 | 1                | 100 | 0                 | 0   | -100                               | 1     | 100     |
| Journalism                | 1                | 100 | 0                 | 0   | -100                               | 1     | 100     |
| Building Construction     | 1                | 100 | 0                 | 0   | -100                               | 1     | 100     |
| Navigation                | 1                | 100 | 0                 | 0   | -100                               | 1     | 100     |
| Non-Responded             | 8                | 27  | 22                | 73  |                                    | 30    | 100     |
| Total                     | 103              | 36  | 185               | 64  |                                    | 288   | 100     |

The country gender assessment by FAO (2019) stated that, although the country had made significant progress in advancing gender equality in education, it has not translated into decent labour opportunities. The report explained further that mining, construction, accommodation, food service, agriculture, forestry, fishing, and transportation activities were strongly dominated by men (Accounting for over 80% of the total employed population in these sectors). Women's employment mainly focused on social sectors such as education and health, as well as manufacturing and unidentified service-producing activities, (such as cooking teaching, caring for family members and other services that are produced by the household for its own subsistence) within the household.

The FAO (2019) report also showed that over 60% of civil servants were females, of whom 32% worked in administrative fields, 26% were teachers, 13% were in cleaning and maintenance sector, 11% were nurses, and 3% were in Accounting and budget fields. In addition, only 10% of police personnel were women, 30% were registered lawyers, 4% were judges and 66% were trained teachers. The Youth Vulnerability Assessment (NCTC, 2019) found that career guidance in schools and elsewhere was almost entirely lacking as was technical and vocational training, and girls were encouraged into teaching and nursing, while boys were put into fishing and tourism.

A potential limitation in the scope of this study is that it does not include the caste system as a background variable. However, other studies have given some support that there are caste-like status groups in the country which are very much associated with the occupations that they represent. This is a subject worthy of future investigation. In the past, castes were more rigid than they are today, and even at present, there are occupations and job-related statuses which play a significant role in determining the privileges that one gets in the society.

Changes in the economic situation of the country have somewhat improved female representation in other areas, such as Accounting and Finance, Tourism and Hospitality, which had been predominantly male-dominated. With the change in socio-cultural and socioeconomic aspects in the society, the expectations associated with the gender roles and field of study are also evolving.

It should be noted that many socio-cultural beliefs are deeply rooted in society, and change take places slowly; usually changes associated with beliefs and their resultant attitudes are the slowest to change. This is most evident in sectors such as Tourism and Hospitality. Even at present, and to a greater extent in the past, female participation in the tourism sector was limited due to cultural and religious enforced restrictions on women's roles and mobility, along with the lack of structures and services for requirements such as childcare (FAO, 2019). Therefore, attraction to study in the field was also minimal. However, with the addition of a few female role models and some changes in ideology, female participation is increasing, and so is their representation in higher education in this field. However, there has been little improvement in STEM subjects. Furthermore, male participation in subjects such as Health and Education, which are predominantly female-dominated, are more limited.

Analysis of the reasons survey respondents provided for choosing particular field of studies, indicates six major criteria: (1) interest in the study program; (2) field-specific reasons such as perceived ability and benefits in the field; (3) recommendation from family to study the program; (4) perceived easiness of the study program; (5) availability of the study program; and (6) affordability of the study program. There was a gender difference in the choice of subjects studied by males and females, based on the occupations available in the country. Due to the changing economy, the country has progressed from a predominantly primary sector-based economy to a tertiary sector-based economy. Table 8 categorises 288 survey respondents by their reason for choosing the field of study by gender.

Table 8 shows that the determining factors for males were field-specific reasons and interest, while the determining factors for females they were availability and recommendation from family. Interest and field of work were secondary factors for

*Exploring gender differences in selection of subjects at higher education levels in the Maldives*

females. Affordability and perceived easiness as a determining factor were of equal importance for men and women.

**Table 8: Reason for choosing the field of study by sex**

| Reason for choosing the field of study          | No of males | %  | No of females | %   | % difference between F & M cohorts | Total | Total % |
|---|-------------|----|---------------|-----|------------------------------------|-------|---------|
| Interest in the study program                   | 46          | 37 | 77            | 63  | 26                                 | 123   | 100     |
| Field-specific reasons                          | 22          | 38 | 36            | 62  | 24                                 | 58    | 100     |
| Recommendation from family to study the program | 4           | 21 | 15            | 79  | 58                                 | 19    | 100     |
| Perceived easiness of the study program         | 5           | 50 | 5             | 50  | 0                                  | 10    | 100     |
| Availability of the study program               | 0           | 0  | 25            | 100 | 100                                | 25    | 100     |
| Affordability of the study program              | 12          | 50 | 12            | 50  | 0                                  | 24    | 100     |
| Non-Responded                                   | 18          | 55 | 15            | 45  |                                    | 33    | 100     |
| Total   | 103         | 36 | 185           | 64  |                                    | 288   | 100     |

More males, therefore, have primary reasons as determining factors. Males tend to be more mobile than females, which is an important consideration given the geographical dispersion of the country and limited education and employment opportunities in the localities. In a survey conducted by UNDP (2014), 56% of women stated that limited employment opportunities are a concern for them at the community level. The same study also revealed that limited vocational and technical training and opportunities for education are concerns for women, both at the individual and community. When these external factors are not a determinant, males tended to get the advantage of choosing a subject of their interest. Furthermore, field-specific reasons, such as perceived ability and benefits, were also an advantage to males as a determining factor. Due to their cultural and social beliefs, women usually tended to stay in the family home prior to marriage. Therefore, women could only seek opportunities which were readily available to them within their communities.

The Youth Vulnerability Assessment (NCTC, 2019) stated that “students in Malé have a range of options and access to higher education, but those living on outer islands often have poorly equipped schools, and to study higher, they must move to the capital or to a larger island”. In a study conducted by the World Bank (2016), both men and women reported a lack of opportunities on their resident island as their main reason for being unemployed. However, women—but not men—also cited the need to focus on childcare and household responsibilities as a reason for being unemployed, attesting to the

societal expectations that they have to face through their reproductive years. Furthermore, the statistics also showed that women own fewer cars and motorbikes than men; 1,068 vehicles registered to females while 6,020 vehicles registered to males in 2017 (FAO, 2019), indicating that accessibility to employment locations is a determining factor for females. The consequence of lack of mobility for females is also reflected in their participation in higher studies. In addition, because of such an overarching influence of the family, acting according to the recommendations of the family was inevitable. Therefore, recommendations from family was one of the key determinants for females when selecting their field of study.

For the two sexes, affordability and perceived easiness of the subject matter played a fairly major role as a determining factor. As in the context of Maldives, household decision making appears to be relatively gender-egalitarian. A nationally representative sample of married women surveyed in Maldives' 2009 Demographic and Health Survey (DHS) found that husband and wife make most household decisions jointly (World Bank, 2016). This could be one of the reasons why affordability was an equal determinant for both.

**Table 9: Factors which influenced the decision to study a particular field**

| Factors which influenced the decision | No. of males | %  | No. of females | %   | % difference between F & M cohorts | Total | Total % |
|---------------------------------------|--------------|----|----------------|-----|------------------------------------|-------|---------|
| No demands                            | 33           | 52 | 59             | 64  | 12                                 | 92    | 100     |
| Demands from work                     | 31           | 57 | 23             | 43  | -15                                | 54    | 100     |
| Demands from family                   | 8            | 22 | 28             | 78  | 56                                 | 36    | 100     |
| Demands from spouse                   | 7            | 24 | 22             | 76  | 52                                 | 29    | 100     |
| Demands from community                | 10           | 50 | 10             | 50  | 0                                  | 20    | 100     |
| Demands to balance work-life          | 0            | 0  | 3              | 100 | 100                                | 3     | 100     |
| Not-responded                         | 14           | 26 | 40             | 74  |                                    | 54    | 100     |
| Total                                 | 31           | 36 | 75             | 64  |                                    | 106   | 100     |

In contemporary societies, it is important to consider the factor of freedom in making decisions regardless of one's gender. Freedom to make a decision was considered to be a dominant factor related to subject choice and studies. When the respondents were questioned about the influence on making their decisions, 52% of males and 64% of females stated that they have no social influence over their decisions. The factors considered herein were (1) demands from work, (2) demands from family, (3) demands from the spouse, (4) demands from the community, (5) demands to balance work-life. When considering the relative difference of percentages between male and female cohorts, females were more influenced by the demands in balancing work-life, family and spouse. When considering the male cohort, they were influenced by the demands from work. Community as an influential factor had relatively the same impact on men and women.

### *Exploring gender differences in selection of subjects at higher education levels in the Maldives*

It was noted that a higher proportion of women (10.5%) tended to marry at an early age (between 18–19 years) compared to men (1.6%) in the Maldives. The majority of men (64.8%) and women (80.2%) were married by the age of 29. Therefore, a high number of those representing in the age group of higher education were married among females, hence the demands from spouse were prominent in making the decision relevant to studies and subject choice in studying.

Due to lack of systematic childcare services throughout the Maldives, it was extremely difficult to focus on career development without traditional extended family support. The Youth Vulnerability Assessment (NCTC, 2019) showed that many youngsters were living with their extended family as there was no means to acquire other proper housing facilities. With no organised childcare facilities available to replace family support networks, it was a significant challenge across the country for women to simultaneously balance a successful job or career with family care responsibilities. Due to dependency on the family for various supports, females were also influenced by their families when making the decision of study subject.

Furthermore, very often, husbands were away working either in fisheries or the tourism sector, thus females were left with most of the caretaking responsibilities. According to data from the 2014 census, 13% of women and only 1% of men stated that they were unemployed because of household chores. This pattern illustrates how gender unequal beliefs and roles in the private sphere (the importance of household chores for women but not men, for example) can disadvantage women's participation in the public sphere for reasons that men do not have to address (World Bank, 2016). Women in higher positions are more susceptible to health risks due to the stress of the multiple burdens placed upon them as breadwinners and caretakers who are responsible for all domestic chores (FAO, 2019). A study by Women on Boards (2017) found that 46% of women left jobs to maintain work-life balance.

In summary, our study showed that managing work-life balance was one of the factors influencing choice of study by females, whereas subject choices for males were influenced by demands from work. Demands from community such as expectation to fulfil a gender-stereotyped role and peer pressure were common to both genders.

## **CONCLUSION**

The study showed that factors other than the field of study impact students' choice of subjects in higher education. Furthermore, the study showed that several factors influenced males and females subject choices. Among the subject areas investigated, it was noted that females were most highly represented in English Language, Human Resource Management, and Education, while males were most highly represented in IT and Law. There was equal representation the fields of Quranic Studies, Tourism and Hospitality, Accounting and Finance, and Business Studies.

The study also showed that gender stereotyping starts at a younger age. Therefore, it is important to present a more gender-balanced and gender-inclusive content in the national curriculum and study materials from lower grades of study. Furthermore, the study also determined that students' choice of subject was very much dependent on the roles and occupations each gender saw for themselves in society. Choice of fields of study is further exacerbated by the hidden curriculum. To encourage females and males

to pursue various roles in society, it is important to incorporate gender sensitivity into teacher training. On this note, it is also crucial that gender aspects be incorporated into professional development programs, both at lower levels of schooling and higher education.

Overall, the determining factors for choice of fields of study for males were field-specific reasons and interests but for females the factors were availability and recommendation from family. Affordability and perceived easiness as a determining factor were of equal importance for both genders.

It is important to understand the context in terms of capability approach and process and not through equality in numbers. Agency plays a key role here. The condition or environment in which individuals are free to make up their mind without fear, violence, and shame are important. The study concluded that various contexts affect choices of study. Females were more influenced by the difficulties of balancing work-life demands from family and their spouses. When considering the male cohort, they were influenced by demands from work.

Community as an influential factor had relatively the same impact on both sexes. The study found that there were no systematic career guidance and scaffolding programs for students. Therefore, the exposure to a variety of fields and availability of information was limited. Furthermore, due to the geographic nature of the country, it is important to decentralise education, to maximize the opportunities available for all. At the macro level, the system should try to provide support, such as childcare and welfare, so that the individuals are encouraged to make decisions which are minimized by outside factors.

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