

# What Drives the Reversal of Gender Disparity in Higher Education Institutions (HEIs): A Critical Review

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**ABSTRACT**--Over the past two decades, female participation in higher education has increased tremendously. In many industrialized the educational attainment of females now often exceeds that of males. Women's participation in HE, relative to men's, has increased, especially in Western Europe and North America. Across the EU, women constitute about half (46%) of all PhD graduates and their rate of increase from 2002 to 2010 was more than twice that of their male counterparts. The international literature mainly focuses on changing gender patterns in tertiary education. The literature on the existence of explanations for gender imbalances in higher education (HE) focusing particularly on girls' increasing access to HEIs. It is an urgent need to understand the barriers that discourage or hinder students from progressing into higher education in across HEIs. The paper attempts to demonstrate the extent of the gender gap in higher education across different HEIs. More specifically, the paper investigates the factors behind the reversal of the gender disparity in tertiary education from Malaysia and other Western country's perspectives.

**Keywords**--Gender disparity, Male students, Female Students, Higher Education Institutions, Gender, Peer Influence, Academic Achievement and institutional Factors.

## I. INTRODUCTION

Although higher education was previously dominated by men, the scenario has been ever-increasingly changing over the centuries. Females have overtaken males in higher education, giving rise to a reversed gender gap (Broecke & Hamed, 2008). Currently, women outnumber men at universities – and it is a trend which is accelerating year upon year in the majority of countries. This disparity between men and women in terms of access to higher education has been a worldwide phenomenon with women comprising the majority of tertiary students. According to Time reported in 2015 for the first time US women were more likely to gain a bachelor's degree than men. The Higher Education Policy Institute (HEPI), a think tank based in the UK, has referred to the phenomenon as a 'national scandal' (Weale, 2016). It is documented that globally, the number of female students rose sixfold from 10.8 to 77.4 million between 1970 and 2008 (UNESCO 2010).

In the United States which showed that females in the United States were more likely to anticipate in a professional job than males at all times between the ages of 14 and 26. Higher education (HE) is accepted as conferring benefits on the recipient beyond those associated directly with degree-level learning ( Mello (2008). It is documented that there now being a global gender imbalance in favour of female students, almost in all regions.

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Female university students dominate in North America (57%), Central and South America (49–67%) and even more so across the Caribbean<sup>2</sup> (57–85%) (ASSAF, 2011).

Europe and West Asia show a similar trend, with the notable exception of Turkey and Switzerland, where females make up around 40% of tertiary enrolment. Similarly, in Malaysia, females have outnumbered males in higher education (Chang-Da Wan, 2017). By the year 2020, the Malaysian government expected at least 21% of youth should be able to receive higher education. Female intake in universities expanded rapidly to 49.5 percent in 1994 from 37.2 percent in 1990. According to Department of Statistics Malaysia, in 2010, the ratio of females' enrolment in public universities was 64.8% or 26,229 out of the 46,506 places offered, compared to male students with only 35.2%.

UNESCO (2012) reported that in Malaysia, females made up 56 percent of total enrolment in HEIs in 2009, compared to 35 percent for males (UNESCO, 2012). According to the Malaysian Ministry of Education (2000) girls consistently outperform boys in public examinations at the primary lower secondary and higher secondary levels in most subjects especially science, English, Malay and mathematics over a period of 5 years (Zalizan and Hazadiah, 2010). In Malaysia, more than 64 percent of university enrollments are female – a number which has increased consistently for years. While the Malaysia Education Blueprint 2013-25 specifically mentioned the problem of 'lost boys', warning that these alienated youths are a potential source of social instability (Ministry of Education Malaysia, 2012).

A recent study showed that Malaysian women contribution to the country is high and significant, particularly in the sector of education (Latifah, 2015). The gap between men and women in higher education hurts most, hence this contributes to increasing overall social inequality (Jonathan, 2017). It has also been argued that young men from poor income families are disproportionately affected by the gender gap in universities. Universities Colleges and Admissions Service (UCAS, 2015) has also pointed out the widening gap between men and women is acting to stall progress in reducing inequality overall.

The aim of the present work is to review the current literature on factors influencing gender disparity in higher education. Moreover, the present study also aims to highlight those factors, which have been studied extensively Malaysia as well as in other contexts. Hence, following question shall be answered by the present research:

1. Why there is a gender disparity in Malaysian higher education?
2. What are the barriers that hinder male students from progressing into higher educational institutions (HEIs)?

## **II. REVIEW OF THE LITERATURE**

The literature on the existence of explanations for gender imbalances in higher education (HE) focusing particularly on girls' increasing access to HE. O'Connor P., Carvalho T., Vabø A., Cardoso S. (2015) reviewed a critical literature on gender in higher education. The study showed that women's participation in HEIs, relative to men's, has increased, especially in Western Europe and North America. The study further elaborated that across the EU 27, women constitute just under half (46%) of all PhD graduates and their rate of increase from 2002 to 2010 was more than twice that of their male counterparts except Science and Engineering.

### ***Motivation***

Motivation refers to an internal term that are encouraged, positive and retain behavior (Awan, Noureen and Naz, 2011). It also means the energy, direction, persistence, activation and intention (Ryan & Deci, 2000). According to Ryan and Deci (2000), motivation is one of the most significant factors in determining the choice of career. A number of studies (Hidi & Harackiewicz, 2000; Ryan & Connell, 1989) found motivation is the most powerful tool to determine whether the students' achieve or fail in education (Hidi & Harackiewicz, 2000; Ryan & Connell, 1989). Hence, it can be assumed that motivation can derive students' decisions to undertake and pursue higher education. For pursuing tertiary education, motivation and individual interest should be reconsidered because these have a positive effect on individual interest, intrinsic motivation and adaption of conquest goals (Ryan and Connel, 1989). By enhancing the motivation to achieve, there is need the large proof to support such as home or family environment and communication with teachers, peers that have positive academic self-concept to academic achievement (Ryan & Deci, 2000).

### ***Self-efficacy***

According to Social Cognitive Career Theory (SCCL), one of the important factors which affects a student's decision about career, is self-efficacy (Lent, Brown and Hackett, 1994). It can be defined as "peopl's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances". (Bandura, 1986). There is a relation between self efficacy and achievement in pursuing higher education. A recent study by Bartimote-Aufflick, Bridgeman, Walker, Sharma, & Smith (2016) showed that students' learning outcomes, learning strategies, self-regulation, and metacognition highly correlated with self-efficacy. It has been argued that students with high level of self-efficacy is likely to accept the challenges and tend to be more successful to pursue higher education (Harris & Halpin, 2002; Ng, S.F., Nik Muhd, N.M., Rahman, K.A., & Ismail, N. 2011)

### ***Gender***

Gender refers to the cultural and social construction and the character of being a male and female contained by community structure (Joseph, 2012). Previously, women always face the constraints in pursuing higher education. Many parents used to believe that education is not important for females (Maqsood, Maqsood & Raza, 2012). However, people attitudes have been changed compared to the past. In a study, Sivasamkar (2014) found that the rate of females in higher education was higher than males. The authors found that the rate of females in higher education was higher than males. Females view has been changed and they are no longer considered themselves as the housewife's or stay home. They realized that how education is important to get the careers due to the social change. Thus, many women are continuing their education until the tertiary education.

Previous research revealed that there would be gender differences in male and female student's desires for higher education. Studies supported that women are expected to enter marriage and parenting at a younger age than did men (Greene & Wheatley, 1992; Kerpelman & Schvaneveldt, 1999; Novack & Novack, 1996; Stone & McKee, 2000; Tinklin et al., 2005). Hence, gender may influence on students' attitudes towards their higher education. There are several studies revealed that, in Asian culture, the influence of family and friends plays a significant role on students' choice of higher education (Joseph & Joseph, 2000; Pimpa, 2004; Chen & Zimitat, 2006; Yusof et al., 2008; Wagner & Fard, 2009). Becker et al. (2010) examined gender-specific changes in the

costs and benefits of higher education. The authors consider the female advantage in the total cost of education to be central to gender disparity in higher education. The authors further argued that the rising demand for college educated workers generated a larger supply response among females rather than males. There are a number of studies measured female choice in higher education (Goldin et al. 2006, Buchmann and DiPrete 2006, Bronson 2013). These studies argued that delayed marriage, reduced fertility, and increased divorce rates are the effective factors may affect female' education choices. Moreover, some studies (Goldin et al. 2006, Buchmann and DiPrete 2006) revealed other factors such as declining marriage rate influences on female's choices about higher education.

### ***Family Influence***

Family is a combination of marital and blood ties and producing children. Family plays an important role in children's higher education. Ismail, Leow, Chen, Lim and Ng (2007) found parental influence on a student's decision to pursue higher education. Similarly, Azman (2010) considered parental support is as the encouragement for children to pursue in higher education accompanied by making financial savings and planning for children's tertiary education qualifications. Pimpa (2004) stated student's decision to pursue tertiary education is greatly influenced family expectation. When the family has an expectation on their children's tertiary education, it encourages them to obtain a good education qualification. Family or parent's encouragement and support directly affect the student's decision on pursuing higher education (Koe and Saring, 2012).

In Germany context, Legewie and DiPrete (2009) address the gender education gap focusing on parental education and point out that in terms of college completion U.S. The study showed that females have overtaken U.S. males while German females only narrowed the gap. The authors pointed out a cultural transformation as lifting prior constraints on female tertiary education. Kember et. al., (2010) noted that students being motivated to pursue higher education because there had been no graduates in their family. Students who decided to pursue tertiary education were to fulfill their parents hope. Students felt an obligation to promote well-being, morale or status of their family by entering tertiary education institute.

### ***Peer Influence***

From the sociological perspective peer group, whose members have interests, social position, and age in common, have an influence on the socialization of group members. Previous research found the relationship between peers influence and student transitioning from high school to college or the workforce (Terenzini and colleagues, 1994). It has been argued that the peers' college attendance influences their friends to attend college. Thus, it can be assumed that peer influence on students' intention to pursue higher education.

### ***Financial Factors***

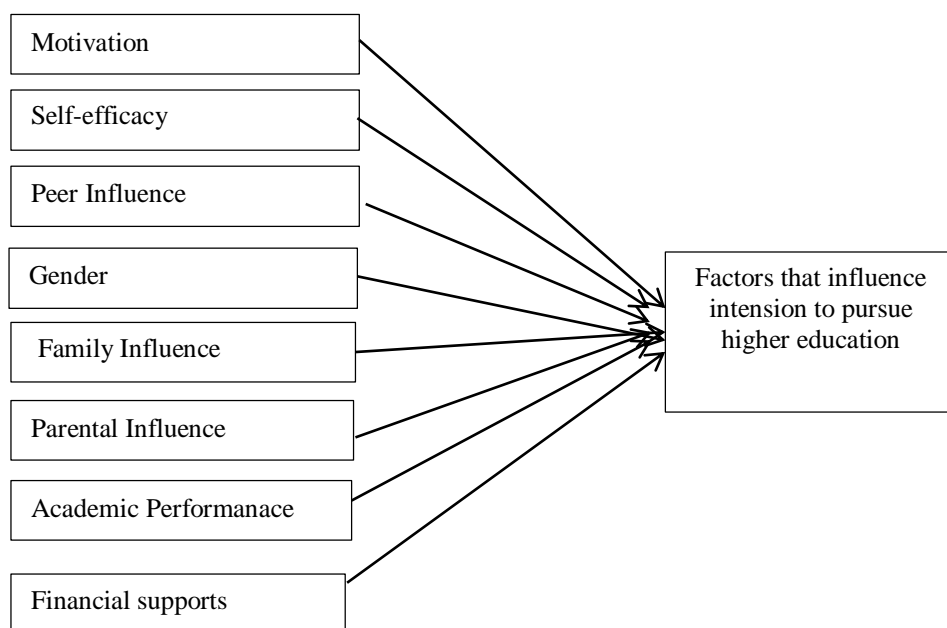
Financial factors refer to parental financial condition and support, scholarships and loans. Although scholarship is one of the factors that provide by the institution or outside source, scholarships are dependent on satisfactory performance. Only those students who have good performance tend to have the opportunity to apply for scholarships (Desjardins, Ahlburg & McCall, 2002). To enroll to university, students need to pay a large amount of tuition fees. The students from poor family needs The poor student financial assistance to continue their study.

Melguizo, Torres and Jaine (2011) stated that cost of education and lack of financial aid may restrict students to go for higher education and cause the students' dropout rate becomes high. Thus, it can be assumed that financial support influence on students' intention to pursue higher education.

### ***Academic Performance***

Chang-Da Wan (2017) conducted a study on student enrolment in Malaysian higher education in degree education. The study was limited to undergraduate level of education within the specific areas of concern, namely academic admission for transition from schools into higher education and the differentiated willingness of households to spend on higher education for their sons and daughters. The reasonable explanations to such a trend: females are more likely to do better academically than males (Broecke and Hamed, 2008). On the other hand, academic position is one challenging position hinder male students progressing into such position. A study was conducted by Zalizan and Hazadiah (2010) gender and educational performance: the Malaysian perspective. The study found a disturbing trend of a yearly decrease of 3.5 % in the pool of male students in the education system resulting in an obvious gender imbalance in the enrolment of students in institutions of higher learning in Malaysia. The study seems to suggest that the males are at a disadvantage since they lag behind academically. Another study was conducted by Latifah (2015) on factors that influence gender gap in degree level of education. The author argued that academic achievement as a key factor that determines the unequal of enrolment in university. This study identified academic performance differs between male and female students at a school level that leads them to qualify for entrance into universities. Entrance qualification to university is based on the meritocracy system of their academic achievement.

### ***Theoretical Framework***



**Figure 1:** Factors Influencing the University Undergraduates Intention to Higher Education

The theoretical model is developed based on the past literature to determine the factors influencing gender disparity in higher education. Based on the previous literature reviewed the framework shows that there are several factors such as motivation, self-efficacy, peer influence, gender, family influence, parental influence, academic performance and financial support influence students' intention in pursuing higher education.

### III. CONCLUSION

Indeed to say that anticipation in higher education has traditionally been dominated by female. In Malaysia, females now outnumber males in higher education institutions (HEIs) and in most fields of study. After reviewing the extensive literatures, it can be summarized that there are several factors motivation, self-efficacy, peer influence, gender, family influence, parental influence, academic performance and financial support influence students' intention in pursuing higher education. Research is needed to understand why there is a gender disparity in higher education and to find out the barriers that hinder male students from progressing into higher educational institutions (HEIs) especially in Malaysian context.

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### REFERENCES

1. Awan, R.U.N., Noureen, G., & Naz, A. (2011). A Study of Relationship between Achievement Motivation, Self Concept and Achievement in English and Mathematics at secondary Level. *International Education Studies*, vol. 4, no. 3, 72 – 79.
2. ASSAf (2011) Participation of Girls and Women in the National STI System in South Africa. Academy of Sciences of South Africa.
3. Becker, Sascha O. & Ludger Wößmann, (2008). Luther and the Girls: Religious Denomination and the Female Education Gap in 19th Century Prussia, *Scandinavian Journal of Economics* 110(4), 777-805.
4. Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ, 1986.
5. Bartimote-Aufflick, K., Bridgeman, A., Walker, R., Sharma, M., & Smith, L., (2016). The study, evaluation, and improvement of university student self-efficacy. *Studies in Higher Education*, 41(11), 1918–1942.
6. Boockmann, Bernhard & Viktor Steiner, (2006). Cohort effects and the returns to education in West Germany, *Applied Economics* 38: 1135-1152.
7. Broecke S. & Hamed, J. (2008). Gender gaps in higher education participation: An analysis of the relationship between prior attainment and young participation by gender, socioeconomic class and

- ethnicity. Retrieved from Department for Business, Innovation and Skills website: [http://www.bis.gov.uk/assets/biscore/corporate/migratedD/publications/D/DIUS\\_RR\\_08\\_14](http://www.bis.gov.uk/assets/biscore/corporate/migratedD/publications/D/DIUS_RR_08_14)
8. Bronson (2013). Degrees are forever: marriage, educational investment, and lifecycle labor decisions of men and women, mimeo, UCLA, Los Angeles
  9. Chang-Da Wan (2017). Student enrolment in Malaysian higher education. *A Journal of Comparative and International Education*. 48 (5), 1-18.
  10. Desjardins, S.L., Ahlburg, D.A., & McCall, B.P. (2002). Simulating the Longitudinal Effects of Changes in Financial Aid on Student Departure from College. *The Journal of Human Resources*, 3, 653-679.
  11. Goldin, Claudia, Lawrence F. Katz, and Ilyana Kuziemko (2006). The Homecoming of American College Women: The Reversal of the College Gender Gap, *Journal of Economic Perspectives* 20(4): 133-156.
  12. Harris, S.M., & Halpin, G. (2002). Development and Validation of the Factors Influencing Pursuit of Higher Education Questionnaire. *Educational and Psychological Measurement*, 62, 79-96.
  13. Hidi, S. & Harackiewicz, J.M. (2000). Motivating the Academically Unmotivated: A Critical Issues for the 21st Century. *Review of Educational Research*, vol. 70, no. 2, 151 – 170.
  14. Ismail, N., Leow, Y.M., Chen, C.H., Lim, T.M., & Ng, F.L. (2007). Choice Criteria for Private Tertiary Programs at a Private Higher Education Institution. *Asian Journal of University Education*, 3(2), 102-121
  15. Jepsen D M & Neumann R (2010). Undergraduate student intentions for postgraduate study. *Journal of Higher Education Policy and Management*, 32.
  16. Joseph, M., & Joseph, B. (1998). Identifying need of potential students in tertiary education for strategy development. *Quality Assurance in Education*, 6(2), 90–96.
  17. Joseph, M., & Joseph, B. (2000). Indonesian students' perceptions of choice criteria in the selection of a tertiary institution: strategic implications. *The International Journal of Educational Management*, 14(1), 40–44.
  18. Joseph, J. (2012). Perspective on Gender Inequality and the Barrier of Culture on Education. *Journal of Community Positive Practices*, 4, 769-790.
  19. Jonathan, Y. T. (2017). The Gender Gap in Malaysian Public Universities: Examining The 'Lost Boys'. *Journal of International and Comparative Education* 6 (1).
  20. Kerpelman, J. L., & Schvaneveldt, P. L. (1999). Young adults' anticipated identity importance of career, marital, and parental Sex Roles (2006) 55:95–110 109 roles: Comparisons of men and women with different role balance orientations. *Sex Roles*, 41: 189–217.
  21. Koe, W.L., & Saring, S.N. (2012). Factors Influencing the Foreign Undergraduates' Intention to Study at Graduate School of a Public University. *Jurnal Kemanusiaan*, 19, 57-68
  22. Latifah, Ismail (2015). Gender Gap in Higher Education: Perspective on Factors Influencing Enrollment in Malaysian Universities: A University of Malaya Sample. *The Online Journal of Quality in Higher Education*. 2 (4).
  23. Lent, R. W., Brown, S. D., & Larkin, K. C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. *Journal of counseling psychology*, 31(3), 356.
  24. Legewie, Joscha & Thomas A. DiPrete (2009). Family Determinants of the Changing Gender Gap in Educational Attainment: A Comparison of the U.S. and Germany, *Schmollers Jahrbuch (Journal of Applied Social Science Studies)* 129(2): 169-180

25. Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology*, 44: 1069-1080.
26. Maqsood, F., Maqsood, S., & Raza, H. (2012). Getting Higher Education: Is it really a Challenge for Females in Pakistan? *Academic Research International*, 2(3), 352-360
27. Majid, G, Sufean, H, Megat, Daud, Mariani, M.N, Simin, G., Husaina, B .K (2018). Issues in Malaysian Higher Education: A Quantitative Representation of the Top Five Priorities, Values, Challenges, and Solutions from the Viewpoints of Academic Leaders. 1-15, SAGE Open Access.
28. Melguizo, T., Torres, F.S., & Jaime, H. (2011). The association between financial aid availability and the college dropout rates in Colombia. *Higher Education*, 62(2), 231-247.
29. Sivasamkar, P. (2014). Analysis of Apparent Completion Rate of Students with Special Reference to a Higher Education Institution in India: A Cross Sectional Study. *International Journal of Management Research and Review*, 4(2), 261-265.
30. Novack, L. L., & Novack, D. R. (1996). Being female in the eighties and nineties: Conflicts between new opportunities and traditional expectations among White, middle class, heterosexual college women. *Sex Roles*, 35: 57–77.
31. Ng, S.F., Nik Muhd, N.M., Rahman, K.A., & Ismail, N. (2011). Influential Factors to Pursue Doctorate Degree in Malaysia. *Procedia Social and Behavioral Sciences*, 15, 2028 – 2032.
32. O'Connor P., Carvalho T., Vabø A., Cardoso S. (2015) Gender in Higher Education: A Critical Review. In: Huisman J., de Boer H., Dill D.D., Souto-Otero M. (eds) *The Palgrave International Handbook of Higher Education Policy and Governance*. Palgrave Macmillan, London
33. Pickering, J. (1997). *Raising Boy's Achievement*, Stanford: Network Educational Press.
34. Parikh, P.P & S. P. Sukhatme (2004). Women Engineers in India. *Economic and Political Weekly*, Vol. XXXIX (2): 193- 202.
35. Pimpa, N. (2004). The Relationship between Thai Student's Choices of International Education and their Families. *International Education Journal*, 5(3), 352-359.
36. Ryan, R.M. & Deci, E.L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well- Being. *American Psychologist*, vol. 55, no.1, 68 – 78.
37. Ryan, R.M. & Connell, J.P. (1989). Perceived Locus of Causality and Internalization: Examining Reasons for Acting in Two Domains. *Journal of Personality and Social Psychology*, vol. 57, no.5, 749 – 761.
38. Stone, L., & McKee, N. P. (2000). Studying universities—Gendered futures: Student visions of career and family on a college campus. *Anthropology & Education Quarterly*, 31: 67–89.
39. Tinklin, T., Croxford, L., Ducklin, A., & Frame, B. (2005). Gender and attitudes to work and family roles: The views of young people at the millennium. *Gender and Education*, 17: 129–142. UCAS. (2015). End of Cycle Report 2015, UCAS Analysis and Research. Available at <https://www.ucas.com/sites/default/files/eoc-report-2015-v2.pdf>
40. UNESCO (2010). *Global Education Digest 2010: Comparing Education Statistics Across the World*. UNESCO (Paris).
41. Varhegyi, M. M. & Jepsen, D. M. (2009). Undergraduate student aspirations, awareness and knowledge of postgraduate study options: A preliminary, qualitative investigation. Paper presented at the International Employment Relations Association Annual Conference, Bangkok.



42. Wagner, K., & Fard, P. Y. (2009). Factors influencing Malaysian students' intention to study at a higher educational institution. Chinese American Scholars Association, New York. Refereed Program of the E-Leader Conference at Kuala Lumpur, Malaysia. Retrieved from <http://www.g-casa.com/PDF/Malaysia/Wagner-Fard.pdf>
43. Yusof, M. B., Ahmad, S. N., Tajudin, M. B., & Ravindran, R. (2008). A study of factors influencing the selection of a higher education institution. UNITAR e-Journal, 4(2), 27–40.