What are the main factors affecting gender pay inequality at banking sector of Azerbaijan?

A study on the main causes of gender pay inequality among bank employees in Azerbaijan

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Table of Contents

1. Executive Summary

The purpose of this research is to examine the causes of the gender pay inequality among bank employees in Azerbaijan. It is aimed to measure the gender pay gap among male and female employees working in banking industry and discover the main causes of this observed gap. The importance of this study is that by conducting detailed examination can increase the awareness of people toward this problem and can positively affect the empowerment of women in the future. Although positive changes have been experiencing related to the women empowerment, the problem of gender wage gap still exist. Gender wage gap is considered as a difference in average income of male and female employees. In academic literature, the gender pay inequality is explained by various differences in individual characteristics of male and female employees or difference in job conditions and job characteristics. Human capital theories refer to the personal differences, skills, and competencies of males and females while explaining the gender pay gap. There are also other explanations of this gap considering job characteristics in the workplace.

In this research, the effects of six independent variables including educational level, work experience, self-development, career breaks, working in the management, and self-selection criteria, gender wage gap has been tested. Consequently, a quantitative research method has been used in order to explore the possible causes of the gender wage gap in banks operating in Azerbaijan. This quantitative research method has involved a method of conducting surveys among male and female employees working in various banks of Azerbaijan. Consequently, the data gathered from 253 participants has been

analyzed. Thus, three analytical tools – descriptive analysis, Difference in Difference estimation, and Oaxaca – Blinder decomposition methods have been applied using STATA – analytical software.

Overall, 6 hypotheses has been tested by using these above-mentioned analytical tools. Firstly, it has been found that in our sample data, number of male employees that are high educated is more than the number of female employees. It has been observed that educational level of employees has the particular effect on the gender pay gap between males and females. Our first hypothesis that educational level of the employees is negatively related with the gender pay inequality, is proved since male employees have higher educational level than female employees, the gap in monthly income between these two groups exists. Secondly, it has been observed that male employees have longer career or work experience than female employees. It has been discovered that work experience is negatively related with the gender wage gap and our second hypotheses has claimed this argument as well. When the female workers are more experienced, they get higher level of income, and therefore the wage gap can be reduced. Consequently, since in our sample data, male employees have more work experience and females have less work experience, a gap in their income exists. It can be related to the fact that females usually have more family of child responsibilities compared to males.

The other factor affecting the wage gap is the difference in number of time spent on self development. The analysis and results of our research prove our other hypothesis that more hours spending on self-development by employees negatively impact on pay inequality between males and females. Participants who have been spending more amount of time on improving their skills and competencies earn more. Our data analysis

shows that since males use more time on the development of their personal skills they get higher earnings compared to women, consequently the income gap between them occurs.Furthermore, according to our findings, less females work in managerial positions, therefore the wage gap between men and women is observed. Men have more opportunities of working in management; therefore they get higher monthly income. The reason for this can be that in their career females experience more career interruptions than men.

In contrast, the hypothesis of action of self-selection by employees is negatively related with the gender pay inequality between male and female employees, is rejected. It is argued that women mainly have unfavorable opinion about their skills, and therefore they are not so enthusiastic for achieving better jobs. However, according to our results men and women have almost the same level of self-selection. Similarly, while comparing the effects of taking career breaks on male and female employees, no relationship has been found and our hypothesis that the number of career breaks is positively related with the gender wage inequality is rejected.

Furthermore, besides differences in individual characteristics of males and females, the unexplained part of the gap – discrimination is found as well. It is discovered that the percentage of discrimination level or unexplained part of the observed wage gap is more than explained part – independent variables' impact. Therefore, it is concluded that besides differences in individual characteristics of male and female employees, discriminatory approach toward females also causes the pay inequality in the workplace.

2. Introduction

2.1. Background Information

It is important to conduct a research related to the discrimination and inequalities among social groups which cannot obtain the same level of goods and services. Gender inequality is the case of having unequal conditions for males and females which significantly impact on their daily life, experience, living standards and so on (Dorius and Firebaugh, 2010). The reasons of such inequalities are investigated by many researchers in various ways – some of them are justified empirically or sometimes are constructed socially.

One of the types of gender inequality is observed frequently in labor markets among men and women. Gender pay inequality is the differences in compensation and benefits among male and female employees in the workplace (Das, 2012). Compared to previous years, the gender inequality has been declining in recent years. The females' rights movements and other social modifications have increased recently, and it has crucial role in the decrease of disadvantages and biases toward female employees (Iceland, 2014). According to the research conducted by Cotter, Hermsen and Vanneman (2005), changes of male and females' job roles comes from various social, technological or economic conditions.

For instance their research shows that "in 1950, only a small number of women (29 percent) worked outside the home, but in 2000, nearly three-quarters of women did; and in 1950, women who were employed worked in a relative handful of nearly exclusively female occupations; but by 2000, women worked in nearly the entire

spectrum of occupations" (Cotter, et al., 2005, p 107). Consequently, females has begun getting higher education level, more abilities and competencies, as well as become a member of the trade unions, and so on.

Despite such positive improvement and changes, the pay gap between male and female employees still exists. The research indicates that comparing the earnings of male and female employees proves that female employees still get substantially less income than male employees. Cotter et al. (2005) investigated that "while nearly nine of every 10 men are in the labor force, only three of four women are working, and in addition, women and men continue to be highly concentrated in typically female and typically male jobs, respectively" (p 107). The most recent data shows that for the year 2020, female employees are paid 81 cents for every dollar paid to male employees meaning that the median wage for males is approximately 19 % higher than the median wage for females (Payscale, 2020). It shows that the problem of unequal earning among male and female employees is still important issue that should be considered.

Rationale of the Research

The gender inequality between male and female employees is researched by various scholars; and several types of biases which are based on race or gender have been identified. However, the shortage related to the systemized and efficient examination of the gender pay gap, exists in the literature. The bigger amount of the researches has focused mainly on the differences in human capital as differences in education, experiences, competencies, and so on between male and female workers. However, as previously stated, improvement in social norms, skills, as well as chances and

opportunities that women possessed show that there should be more detailed researches for identifying main roots and reasons of existing gender pay inequality. Consequently, conducting research related to the gender wage inequality is crucial for the deep analysis of the main causes of the gender wage gap.

Such inequalities in earnings of male and female workers are more observable in developing countries as Azerbaijan. The pay gap as well as biased attitudes toward males and females are more common in such countries. Therefore, doing examination in such developing countries as Azerbaijan related to the causes of gender wage inequality and accordingly the possible remedies for it has a significant importance. Azerbaijan openly shows commitment to the gender equality in its legislation and policies. For instance according to the Labor Code of Azerbaijan (2020), it is ensured that men and women should have equality in the job and have equal access to it. However, the mean earnings of females are still less than the mean earnings of males in Azerbaijan. For instance, Azerbaijan Human Development report (2007) investigated by UNDP indicates that perception of people toward males as breadwinner and their responsibility to support the family financially is a crucial factor in Azerbaijan. This report illustrates that approximately 40% of the females and 47% of the males indicated that a family did not need females' earnings if the husband got enough salary.

Another study on the gender wage differences in Azerbaijan is based on survey data among 15-29 years old participants Pastore et al., 2016). It indicates that when males and females enter the labor market for the first time, gender based inequalities are not observed much. It happens gradually especially in the time period of marriage as well as in birth giving years. It is also examined that "the gender wage gap grows from virtually

zero, or even a small, positive gap in favor of women, until age 20 years, to about 20 percent two years later and even more than 30 percent at age 29 years" (Pastore et al., 2016).

Consequently, the main objective of this research is to examine the main causes of gender wage inequality in banking sector of Azerbaijan. The goal is to conduct research among male and female employees working in various banks of Azerbaijan. It is aimed to find out the main differences among male and female employees related to the factors of human capital or working conditions, compare such factors and the income level, and consequently explore the main triggers of gender wage gap among bank employees.

The importance of this study is that since there is no efficient number of researches related to this specific problem in Azerbaijan, it will be helpful for increase awareness among people related to the gender wage inequality here. Analyzing and exploring the gender pay inequality as well as increasing awareness toward this issue can help to focus on this problem more and find out effective remedies for it in Azerbaijan. Consequently, it can also result in positive contribution to women empowerment.

Research Question and Hypothesis

Consequently, the main research question of this study is "What is the main factors affecting gender pay inequality at banking sector of Azerbaijan?". There can be various dimensions that trigger the level of gender wage segregation in workplace including career breaks, self-improvement of employees, work experience, educational level, self-selection criteria, and being in managerial positions. These are mediators that lead to higher gender pay inequality. More precisely, career breaks – maternity leave or

children care can restrict women to get better and well-paid jobs as well as go to higher positions.

In addition the other mediator which is self-improvement by employees can lead to improving their skills more and being more successful in the workplace. Similarly, having more work experience also gives more chances to get better paid jobs and being promoted for higher executive or managerial positions. Thus, educational level is another mediator which can affect in a way that employees with higher level of education can get better job opportunities in competitive labor market. However, some disadvantaged or discriminated groups as women with lower level of education can get less job opportunities. Furthermore, employees who are able to hold managerial positions in their career tend to be paid higher salaries compared to others. Lastly, self-selection criteria meaning personal selection or values of female employees toward their skills and competences can have impact on the level of gender wage inequality.

Firstly, the income level of male and female employees will be identified, then the gap between males' average income and females' average income will be measured. In next step, it will be analyzed that how these indicated mediators affect the pay gap between male and female employees. As a result, the main causes of gender wage gap in our sample will be explored.

To sum up all these arguments, in this research following 6 hypotheses will be tested:

1. *Educational level of the employees in banking sector is negatively related with the gender pay inequality between male and female employees.*

2. *The work experience of the employees in banking sector is negatively related with the gender pay inequality between male and female employees.*
3. *Spending time on self-development by employees in banking sector is negatively related with the gender pay inequality between male and female employees.*
4. *The number of career breaks taken by employees in banking sector is positively related with the gender pay inequality between male and female employees.*
5. *Being in managerial positions during the career of the employees in banking sector, is negatively related with the gender pay inequality between male and female employees.*
6. *Action of self-selection by employees in banking sector is negatively related with the gender pay inequality between male and female employees.*

As described in the hypotheses, this research requires one dependent variable which is monthly income of the participants and dependent 6 independent variables including educational level, work experience, number of hours spending on self-development, number of career breaks, being in managerial positions, and extent of self-selection. In addition, there are two control variables which are age and gender.

3. Literature Review

3.1. Definition of Gender Wage Inequality

Gender pay inequality is one of the types of expressing unfair attitude toward different employees in the work environment (Chevalier, 2007). According to Blau and Kahn (2006), gender pay inequality is the compared measurement of the average salary of female workers and the average salary of male workers. Thus, Arulampalam et al

(2007) provide the definition of gender wage inequality as the mean wage of woman is compared to the mean wage of man. Mandel and Shalev (2009) give three types of more detailed explanations for gender wage inequality –difference in the yearly average financial returns; weekly average wages; and hourly average salaries of all female and male workers.

Furthermore, Keogh et al. (2018) clarifies two interconnected subjects in order to define the gender wage discrimination – gender pay gap and unequal pay for equal work. According to Glynn (2018), difference in salary mean of men and women is specified as gender wage gap. Furthermore, Keogh (2018) et al. defines unequal payment for equal work as a gap in wages of male and female workers who perform the equal job duties. Gardeazabal and Ugidos (2003) argue that gender wage inequality cannot be described only with the gap in productivity level of male and female workers. They define gender wage discrimination as the process when workers with the same productivity level are compensated differently. Stanley and Jarrell (1998) explain that such discrimination is the case when employees get different amount of money despite of the fact that they have the same level of productivity.

3.2. Causes of Gender Wage Inequality

Kim and Sakamoto (2008) use population survey in order to identify the relationship between various occupational level sand gender pay gap, and find out that income gap within different occupations increase due to the difference in individual characteristics of male and female workers. Such supply-side explanations rely on characteristics of employees who are supply of the labor. Human capital theories also

explain gender wage gap with individual gender differences, for instance females consume less time and effort for their career due to labor division in the family as well as males invest more in the development of their human capital and so on (Manning and Swaffield, 2008). Similarly, other researchers related to the human capital model also indicate the reason of existing gender pay gap as individual differences on human capital such as gap in education level or work experience between male and female employees (TODD, 2010).

Thus, by the analysis of micro data, Lindley and Machin (2018) emphasize that gap in educational level triggers the gender pay inequality. Yoo (2003) analyzed that during 1988-1999 in Korea, increasingly active participation of female workers in higher paid jobs is caused by increasing level of education of women. Thus, McCall (2000) examines rising gender income gap among college educated and non-college educated employees and finds out that this gap is more comparable for female workers than males. Kassenboehmer and Sinning (2014)explore that the gender based pay inequality is lowered by "16% at the lowest decile and by less than 5% at the highest decile", and this investigation shows that such decrease is explained by changes in educational level in favor of female workers (p 335).

The other individual characteristics effecting gender wage gap is related to the family factors. Sierminska and Grabka (2010) have conducted research related to the gender based differences in financial returns of male and female employees by using income data from SOEP – German Socio Economic Panel study. They indicate that one of the reasons of gender wealth gap is the lower participation rate of female employees in labor market. Bardasi and Gornick (2008) explain such difference as the breadwinner role

attached to the males, therefore males own more full-time job experiences rather than females who usually deal with part time jobs because of child bearing. Denis (2007) argues that being married and parenting hugely affect the income level of people, and this case impacts the career of female workers more because women get such responsibilities at earlier ages than men.

Manning and Swaffield (2008) explain gender pay gap by job-shopping models which is related to the finding appropriate job based on your own abilities and circumstances. They basically suggest that females are more restricted in their work selection, for instance they are forced to choose the jobs that have near location, do not travel more often, as well as are not motivated with financial returns so much due to family dedication. In addition, due to differences in marriage practices, male and female workers experience wage gap, for instance females usually marry with men who are elder and have more work experience (Sierminska & Grabka, 2010). As a result, they become main wealth accumulator in the family and gain more.

Furthermore, the other fundamental factor explaining the gender wage gap is related to the psychological differences between males and females. Manning and Swaffield (2008) indicate that males have higher self-esteem than females, and measured in their research that “only 13.9% of male youths agreed with the statement 'I don't have much to be proud of compared to 17.5% of females” (p 1007). They also indicate that “the lower self-image for females is shown even more starkly in the responses to the statements 'I certainly feel useless at times' - 29.1% of male youths agreed compared to 44.8% of females” (p 1007). Thus, the other main psychological difference is the diverse risk preferences of males and females so that women tend to participate in less risky and

traditional investment practices compared to men (Jianakoplos and Bernasek, 1998). Therefore, being engaged in traditional and small investment activities leads to less financial returns for women. Additionally, Brush et al. (2002) explain that less social interactions of females due to other responsibilities as marriage or children care, leads to having less chances of participating in other kinds of investment activities such as venture capital. As a result, it restricts them to engage in diverse kinds of wealth creation activities and triggers the gender wealth inequality.

However, the researches that focuses on only individual differences among men and women as described above have limited perspective since besides these differences there are other job-related characteristics which has crucial role in existing gender pay gap as well. Thus, such demand-side explanations of gender wage inequality focus on employer or institutional side. In such explanations, gender based serotype and discrimination are highlighted. The empirical study of Rubery and Figueiredo (2005) identifies that traditional human capital theories should be avoided and instead of it, the working conditions - salary structure, performance pay system, or recruiting system should be analyzed. Thus, they explain that in the working processes, male and female workers are sometimes allocated in the discriminated job units where mostly males' work is provided with higher wage than females'. Similarly, according to the comparative institutional approach, labor market norms and job conditions do not allow the equal job opportunities for men and women (Grimshaw and Rubery, 2002).

Blau and Kahn (2007) link the trend in gender wage gap with the wage structure in workplaces and explain that how wage structure can have an impact on gender pay inequality. They specify that jobs occupied mostly by male employees provide higher

amount of wage while jobs occupied mostly by female employees provide less. Consequently, the higher chances of being in male-dominated occupation cause bigger gender pay gap.

Kahn (2006) conducted research in order to provide proper explanations for gender-based discrimination in the workplace. According to the described explanations, more skilled, trained, as well as experienced workers are demanded by labor markets and employers. It is also due to the technological advancements that job structures now require specialized workers with sufficient knowledge of such advances and have proper experience (Rubery and Figueiredo, 2005). Therefore, women who could not put sufficient effort in their technical knowledge, skills, or job experience due to family related issues, are not able to be successful in labor market and earn as much as males.

Several models explain gender pay discrimination by approaches of employers, colleges, and so on. According to the statistical discrimination model, different treatment toward male and female workers are based on distinction in expected productivity value of males and females (Kahn, 2006). According to the research done by Manning (2003), there are certain discriminatory approaches relying on the occupational factors and job characteristics. Males have more chances to get jobs in production, information technology, construction, engineering and other sectors while females get more opportunities in service, education, or secretarial sectors (Manning, 2003). Therefore, such differences create discriminatory wage structure for male and female employees in various occupations or industries.

3.3. Effects of Gender Wage Inequality

The possible effects of gender wage gap are another broad topic that has been discussed in the literature. One of the negative effects of existing gender based wage discrimination is decreased economic activities in the country. The proportion of the labor force – the rate of the workforce working in the particular organization or company, is one of the crucial elements which impact on the strength and well-being of the economy (Maloney, 2016). Consequently, having broad range of gender wage gap leads to negative effects for the economic growth of the country. Thus, when the practices of pay discrimination and unequal conditions for male and female workers happen, females become discouraged to participate in labor market and active workforce. As a result, these practices decrease economic activities and negatively affect the strength of the economy in the country (Daly & Regev, 2007).

In order to achieve development of economic activities and efficient economy, it is crucial hiring employees in the workplaces suited for their competencies and abilities (Maloney, 2016).There can be various obstacles and restrictions that do not give a chance to women to present their skills and competencies. It restricts female workers to achieve their full economic potential (Harttmann, 2017).

Therefore, such restrictions and limitations should be eliminated for giving more opportunities and economic achieves to female workers. Furthermore, reducing wage gap between males and females and raising income level of female employees can help to increase the rate of household spending. Consequently, increased household expenditure and creating additional demand by consumers positively affect economic development

(OECD, 2015). The report by OECD (2015) indicates that economy would improve by five percent in 2030 if the portion of women participation in the labor market was reduced in half and gender wage gap was decreased.

Moreover, the gender wage inequality causes economic as well as socio-cultural effects. Thus, since wage gap between males and females reduces financial well-being of the families, the gender pay inequality reduces family earnings and raises poverty level (Harttmann, 2017). In addition, the other important impact of gender wage gap is its socio-cultural effects on females. According to the research conducted by Aizer (2010), financial inequalities between males and females negatively affect their empowerment as well as independence. Having less financial returns by females increases their dependence on males as well as their power to keep safe themselves from the domestic violence.

3.4. Remedies for Gender Wage Inequality

Scholars identify that proper solutions for decreasing gender wage inequality are to eliminate personal differences between male and female workers. Therefore, it is beneficial to provide accessible opportunities to females for developing their abilities, education, and job experience. Thus, one of the important ways is to be able to help females to improve their education level and help them who do not have proper chances for it. Women should be assisted to get higher level of education, more trainings, and guidance in order to achieve some advances in recruitment process as well as in the workplace.

According to the research by Kassenboehmer and Sinning, “gender wage gap narrowed by 16% at the lowest wage decile and by less than 5% at the highest decile of the wage distribution between the periods 1993 to 1995 and 2004 to 2008” (p 355). This investigation shows that gender wage gap is narrowed and the reason of it is the increased education level of women (Kassenboehmer & Sinning, 2014).

However, in various researches, it has been found that the gender based wage gap for graduated people is not triggered by imbalance in the level of schooling or academic achievement but mostly by subject discrimination among males and females. Subject discrimination is the case that male employees have been graduated from the degrees that offer higher income generating jobs (Chevalier, 2007).

According to the research of Chevalier (2007), “the additional inclusion of controls for subject of graduation (model 2’) increases the explained gap to 50 per cent, with a contribution of subject to the explained component reaching 77 per cent.” (p 12). It is the common practice that even first entering to the labor market is challenging for females because of the gender based discrimination.

Thus, especially after obtaining responsibilities of family and children, such wage gap has been widening more. For that reason, women should be protected with proper social programs and assisted for balancing their job and family responsibilities. Bargain, et al. (2018) argues that for eliminating the cases of gender wage discrimination, the portion of the fathers and childless male workers who work long hours should be decreased. It means that the portion of female employees who work long hours should be increased (Weeden, 2016).

One of the possible remedies for the gender wage inequality is to identify and restrict the discriminatory manners of employers and managers. (Kahn, 2015) have measured the extent of gender pay inequality by comparing distinctions in performance pay system among men and women. It has been found that discriminated performance pay system is more in favor of male employees. Rico et al. (2015) have explained this performance pay discrimination as dealing with more housework duties and putting less effort for more achievements in the job by female employees.

Besides the factors related to the family conditions, it has been found that biased views by employers and managers who deliberately pay less amount while implementing performance pay system are the other crucial reasons. Therefore, it has been concluded that the biased manners of employers in performance pay have to be restricted since gender wage inequality and differences in performance pay system are related.

It is suggested that for managers and employers, training programs can be conducted in order to minimize their discriminatory views toward male and female workers. Rubery and Figueiredo (2005) have explained that the biased performance pay system between male and female employees is not only because of the distinctions in their productivity level. It has been researched that gender wage gap is also result of different job conditions, pay systems, work characteristics, and etc. For that reason, it is recommended that certain policies related to these job conditions for controlling gender wage inequality should be organized.

First of all, in order to decrease gender pay gap, setting wage floors is one of the effective ways. It is a common practice in various workplaces that female workers are

allocated at the bottom of the pay distribution (Bargain, et al., 2018). Gender wage gap will be decreased due to increased wage floors in such workplaces because it will directly impact the bottom line.

For instance, the survey conducted by Bargain, et al. (2018) has showed that a huge reduction in gender pay gap at low wages is observed when the minimum wage policy is introduced. Similarly, another research which involves data of 22 different countries, shows that "more compressed male wage structures and lower female net supply are both associated with a lower gender pay gap, with an especially large effect for wage structures" (Blau & Khan, 2003, p 106). As a result, this investigation proves that increasing wage floor causes the raise of wages of female employees which is due to women being at the bottom line of the pay distribution (Blau & Khan). Thus, the analysis done in 17 countries over 1960-1996 by Kahn (2015) proves that minimum wage floor makes the salary of low-paid workers such as females, increase which has also positive relationship with the collective bargaining practices.

Secondly, one of the proper solutions in order to decrease gender wage inequality is to shape the coverage of the collective bargaining practices. The extent of the dependency of the employee pay system on the collective bargaining is one of the ways of determining the salary. Thus, union membership helps to raise overall employee wage, consequently reduce gender wage gap which makes women as well as other minority groups be recognized.

For example, "In 1998, women in unions earned 39% more than their nonunion counterparts" (Elvira & Saporta, 2001, p 470). It is tested that whether collective

bargaining reduces the gender wage gap among manufacturing workers or not. It has been identified that "the estimated pay disparity between men and women is smaller in unionized establishments in six of the nine industries studied, encompassing a large portion of the manufacturing workforce" (Elvira & Saporta, 2001, p 470).

Furthermore, the research of Polachek & Xiang (2006) shows that increased collective bargaining practices have negative relationship with the gender pay gap. The reason of this relationship has been explained as a fact that increased collective bargaining practices result in higher wage floors, consequently attaining equal income. By analysis of secondary data from 67 countries, Polachek & Xiang (2006) have found out that more compressed pay structure for men - smaller income distribution causes gender pay gap to be reduced.

4. Methodology

4.1. Research Strategy

Firstly, the overall approach to the research was identified in order to investigate the causes of the existing gender wage inequality in the banking sector of Azerbaijan. It was identified that the quantitative methods would be a proper methodological approach for conducting such research. In this research, as a quantitative research method, surveys were conducted among male and female employees working in banking industry in Azerbaijan. It was an effective method for measuring as well as discovering patterns and causes of the phenomenon related to the gender pay gap among male and female workers. It required efficient sample and certain controlled variables. It was also an effective way of getting in-depth exploration related to the some unexplained results and certain factors

that were difficult to be measured such as discriminatory approaches of employers toward male and female employees. The goal of this research was to investigate practical research problem rather than theoretical, for that reason, mainly using quantitative methods was appropriate. Therefore, such approach of the quantitative methodology was suitable for being able to answer the research question.

By implementing quantitative methods, the data was obtained from the various banks operating in Azerbaijan because the research addressed the gender pay inequality existing in banking sector of Azerbaijan. One of the banks that the research mostly was conducted was Yapikredi Bank due to the fact that I have been working at the HRM department of that bank. Consequently, I could conduct the surveys in fast and reliable way. However, in order to get more reliable data and diversify the research sample, the data was collected also from the other Azerbaijani banks such as International Bank of Azerbaijan, Pasha Bank, Unibank, Accessbank and so on.

4.2. Data collection

In more details, the main method of data collection was conducting surveys. The participants of this survey were people working in various banks of Azerbaijan as indicated above. The objective of conducting statistical analysis among the employees of the various banks was to get more detailed and broader description of the problem and reach more precise data from different banks. The criteria for the participants of the survey were to be both male and female employees working officially and full-time in the banks operating in Azerbaijan. Therefore, certain employees were not included, for instance outsourced workers who were not the employees of these banks but the other

companies. The other criteria were to be Azerbaijanian, consequently expats were not included in the process of the data collection since they were from foreign counties, and this research aimed mainly address gender wage gap in Azerbaijan. Their perspectives, background, contracts and etc. are different from Azerbaijani employees, therefore they were considered as outliers.

Furthermore, the main method of conducting surveys was to send it online to proper participants. Firstly, the survey link indicating the purpose and context of the research was sent via work email of selected employees of YapiKredi Bank. Then, in order to address employees of the other banks, the survey was shared via social media as LinkedIn and Facebook. Thus, it was clearly mentioned that it mainly involved employees working in the banking industry.

In order to select participants, the sampling method that had been used was non-probability sampling method involving non-random selection out of the proper population. The population involved all male and female employees working in various banks operating in Azerbaijan. According to the official website of the Federal Bank of Azerbaijan, recently the amount of bank employees is equal to 19757 people in Azerbaijan (February, 2020). Since it was fast and cheaper to access the non-probability sample, such sampling techniques were used during the research process. These techniques mainly included convenience sampling – asking for friends to complete the survey in the workplace and voluntary response sampling–sending the survey online to the employees of YapiKredi Bank and via social media to the employees of the other banks in Azerbaijan. Consequently, it took three weeks for participants to respond the

survey. At the end, this survey generated the sample of 253 active participants from various banks of Azerbaijan.

Since the survey included sensible questions as salary or satisfaction level with their income, the anonymity and confidentiality of the respondents and the bank that they were working were highly secured. Thus, it was clearly indicated in the introduction page of the survey in order to encourage participants to provide unbiased and precise responses.

The survey consisted of 11 questions which were designed as multiple choice and rating scale questions. It began with the questions related to the control variables such as gender and age. The next question was related to the educational level of the respondent – high school degree or equivalent; bachelor's degree; master's degree; or doctorate level. The other question evaluated the work experience of the participants with the lowest option as less than one year and the highest option as more than 10 years. This questionnaire also asked how many hours per week employees spend on their self development which would be important factor for analyzing its relation with the wage gap between male and female employees. In addition, the other crucial variable was related to the experiencing career breaks by employees which could affect their income level. Therefore, it was also asked that during their work experience, how many times as well as how long they had taken career breaks such as military leave; maternity break; caring children and so on.

Thus, in order to identify the extent of the vertical segregation - number of women in the managerial positions and number of men in the managerial positions, one yes/no question is included to the survey asking that whether they hold any managerial

positions in their career or not. The question was also asked related to the extent of self-selection by employees – to what extent they think that they are well paid for their skills, competences, capacity and the tasks that they do. In addition, one multiple choice question was asked in order to identify the recent monthly salary of the respondents. Lastly, the survey ended with the likert scale question about that to what extent the respondent agree/disagree with the following statement: I believe I am compensated fairly relative to my co-workers at my company.

4.3. Analysis Methods

Before beginning the data analysis, this collected data was prepared for the proper analysis. The data was checked for missing data and outliers. Missing data which were survey questions that had not been answered and outliers that was for instance participants not working in Azerbaijan, were deleted. Then, the data obtained from the survey results of bank employees, was analyzed by using statistical software – STATA.

Furthermore, the data was prepared for the analysis by coding these survey results. Categorical data was divided into groups and dummy variables were created. For instance, the gender variable was coded as 0 if male and1 if female. Similarly, participants were categorized as 0 if young and 1 if not so young. Education level also was another categorical data and was divided into two groups as low level education including high school degree as well as bachelor degree and high level education as master's degree and doctorate. In addition, the other independent variable that is self-selection was categorized as agreed and not agreed by dividing into two dummy variables as well.

Furthermore, income, work experience, self-development, as well as career breaks were variables of numerical data and were used in order to demonstrate quantitative values. For indicating the income level of participants, their average monthly salary was considered. Similarly, work experience also showed quantitative values – average number of years that the respondents had been working. The other independent variable that is self-development included number of hours that the respondents spent weekly on development of their personal skills, competences, knowledge and so on. Lastly, career breaks were measured as the number of career breaks that the respondents have been taken during official working experience.

Variables	**Measurement**
Income	Average monthly salary of the respondent
Gender	0 - if the respondent is male
	1 - if the respondent is female
Age	0 - if the respondent is young
	young group - 15-24 years old
	25-34 years old
	1- if the respondent is not young
	not young group - 35-44 years old
	45-54 years old

	over 55
Education	0 - if low level education
	low level - high school degree
	bachelor's degree
	1 - if high level education
	high level - master's degree
	doctorate level
Work Experience	Average number of years that the respondent has been working
Self-Development	Average number of hours that the respondents spend in their self-development
Career Breaks	The number of career breaks that the respondents have been taken
Managerial Position	0 - if the respondents have been in managerial position in their career
	1- Otherwise
Self-Selection	To what extent the respondents think that they are well paid for their skills
	0 = Disagreed
	Not at all well / Slightly well / Moderately well
	1 = Agreed
	Very well / Extremely well

Income Satisfaction	To what extent the respondents think that they are compensated fairly relative to their co-workers 0 = Not Satisfied Strongly Disagree / Disagree; Neither / Agree nor Disagree 1 = Satisfied Agree / Strongly Agree

Moreover, in order to test the hypothesis and conduct the data analysis, three main analyzing methods were used including descriptive data analysis, Difference in Difference estimation method, and Blinder – Oaxaca decomposition method. Firstly, by using descriptive analysis method, the average income gap between male and female participants was identified, and mean and standard deviation of each variable, as well as the gap between these variables were illustrated for comparison. Secondly, Difference in Difference estimation was applied in order to explore the relationship and differences between our dependent and independent variables. The mean income of male and female employees was calculated by considering each independent variable that can be related with gender pay inequality – educational level, work experience, self-development, career breaks, being in management, and self-selection criteria. Thirdly, Blinder – Oaxaca decomposition was another statistical method that had been used for more detailed analysis of the observed gender wage gap. It decomposed the wage gap between

males and females into two parts - wage gap that was because of different average values of independent variables and the wage gap that was because of differences of these two groups in the independent variables' impact. These parts were also indicated as endowments and coefficients. This analysis involved threefold and twofold decomposition methods. Threefold had been showed endowments, coefficients and interaction parts in order to explain the observed gap. Thus, twofold decomposition included explained and unexplained parts. Explained part was about to what extent the wage gap is explained by different values of independent variables while unexplained part was related to the discrimination and bias as a cause of gender wage gap since independent variables could not explain this wage gap.

5. Importance of Study

One of the importance and benefit of such study is that it can provide detailed and broad research related to the gender pay gap in banking industry since there is not sufficient number of researches related to this context in Azerbaijan. Such investigation can be effective and crucial source of information for the banks in which the research has been conducted for analyzing possible causes of the wage gap. Such researches are also helpful for identifying and analyzing the effects as well as roots of the gender pay inequality existing in developing countries such as Azerbaijan. By analyzing the literature about the causes of the pay gap between male and female employees in especially developing countries, it can be possible to fulfill the researches related to the possible remedies for narrowing this gender pay gap as well. If the results of this research are provided to the HR managers of the banks, it would create a general perspective for the

problem and be an important source of information for HR managers to be able to analyze the gender wage inequality and its main reasons within the organization.

Moreover, the other practical benefit of this investigation will be the positive changes about the awareness of people toward this problem. It would be possible that the results of the research can be disclosed in the various banks but by keeping the anonymity and confidentiality of the respondents. Consequently, there will be available data and analysis related to the phenomenon of the gender wage gap, its measurement, and the possible reasons affecting gender wage inequality and so on. Therefore, it will increase the awareness among employers, managers, as well as employees toward this problem. As a result, it can encourage the banks to realize the possible remedies and outcomes in order to narrow this wage gap. Thus, conducting such researches in Azerbaijan context, can lead to the empowerment of female employees as well as economic improvement in the long run. Banks operating in Azerbaijan can benefit from the results of this investigation by being aware of such challenge among employees and developing additional strategies in order to narrow this gap.

6. Limitations of Study

There were several shortcomings in the process of conducting this research that were not possible to control so much. The first limitation was about the access to data. Since this research analyzed the gender wage gap in banking sector of Azerbaijan, it would be better to include certain number of participants from all banks operating in Azerbaijan. It could increase the accuracy and reliability of the data. However, since there were certain limitations related to the time and cost, it was possible to involve

participants from only a few number of banks. Not considering all possible resources could limit us to be able to cover all possible aspects.

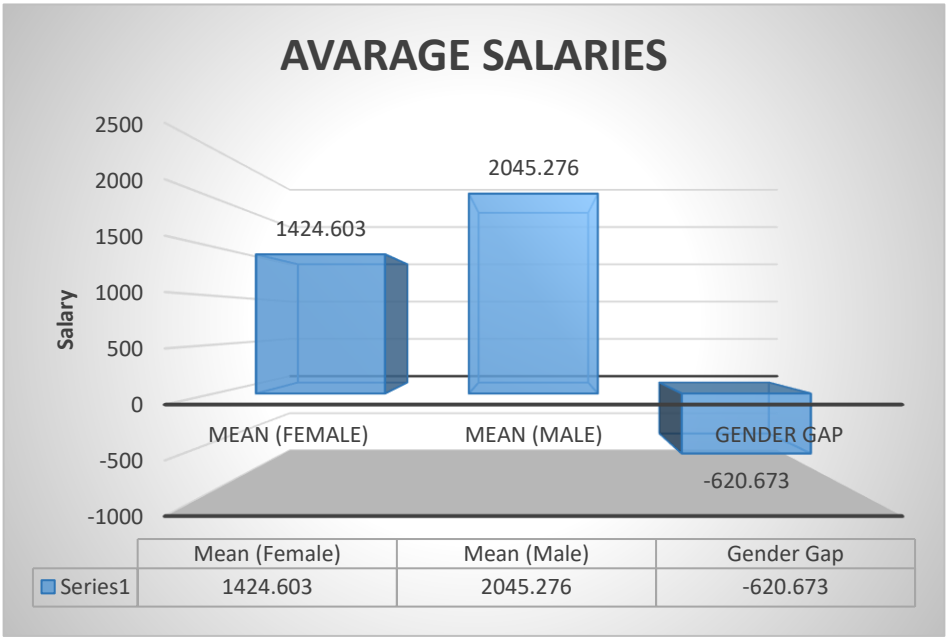
The second limitation of the research was the possibility of omitting some important variables. In statistical research, it is a common problem that several crucial variables explaining the analysis could be excluded while collecting and analyzing the data. For instance, it is possible that in the research related to the gender wage inequality, over emphasizing human-capital characteristics can explain or measure only some parts of the gender wage gap. There would be other variables related to the differences in conditions for male and female employees that broaden the observed wage gap. Therefore, in this research the limitation is that the other causal variables were not included in the data collecting and analyzing process. For that reason, there could be overestimation of discrimination and bias between male and female employees.

Furthermore, one of the limitations that had been faced during research process was difficulties of involving sufficient number of participants to the research due to sensitive and confidential questions. Despite the fact that it was clearly indicated that the anonymity and confidentiality of the results would be kept, people hesitated to fill in the questionnaire that was about monthly income or how well they are paid relative to their co-workers. It was sensitive question for most of the people to answer the questions about their income and earnings. Therefore, it was time-consuming to ensure participants about that and wait for them to fill in the questionnaire.

7. Results

The survey results indicating the income level of the bank employees help to measure the gender pay gap within these banks. The dependent variable – income shows the extent of wage gap among men and women. The Table 1 illustrates the mean values of the monthly salaries (in AZN) of the male and female employees separately as well as the gap by subtracting these mean values.

Table 1: Men's average salaries versus women's average salaries



The table shows that the mean salaries of the female employees are 1424.603 while the mean salary of male employees is equal to 2045.276. The subtraction of these mean salaries gives us -620.673 – the gap in favor of male employees, however the more precise measurement of this wage gap is calculated with gender pay ratio. This method is

used for finding unadjusted gender wage gap which does not include independent variables that have an impact on the wage gap:

$$\textit{Gender pay ratio} = \frac{\textit{Women's average salaries}}{\textit{Men's average salaries}}$$

$$\textit{Gender pay gap} = (1 - \textit{Gender pay ratio}) * 100 =$$

$$\left\{\frac{(\textit{Men's average salaries} - \textit{Women's average salaries})}{\textit{Men's average salaries}}\right\} * 100 =$$

$$\left\{\frac{2045.276 - 1424.603}{2045.276}\right\} * 100 = 30.3\ \%$$

This is the simple and unadjusted way of calculating gender wage gap. In this method, measurement of the gender wage gap includes simply comparing average salaries of males as a group with average salaries of females as a group (Chamberlain, 2017). Consequently, this calculation resulted in that male employees get 30.3% more average salary than female employees.

7.1. Descriptive Statistics Results

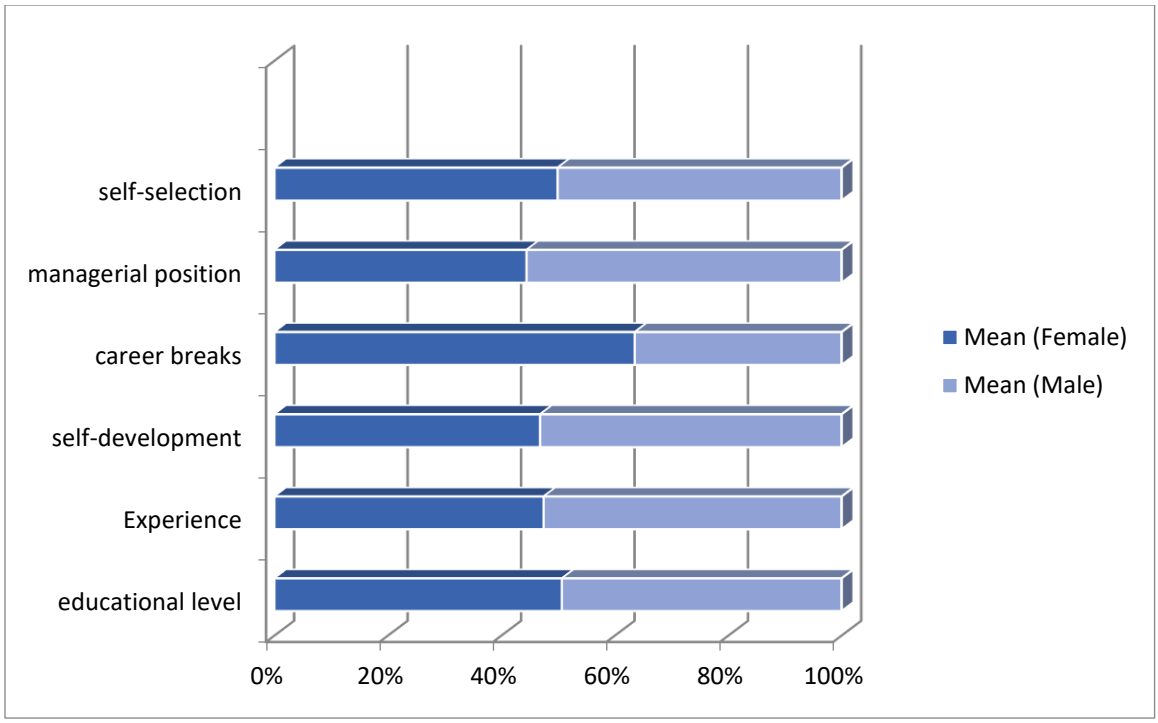
The first method of measuring gender pay gap is taking into consideration the independent variables, their differences as well as the impact on the employee salaries. Primarily, by descriptive analysis, the average mean and standard deviation of each independent variable are identified. The summary data related to the all independent variables is generated by the help of statistical software – STATA. The table 3 lists all independent variables – educational level, work experience, self-development, career breaks, managerial position, and self-selection. Accordingly, the mean and standard deviation of each independent variable are illustrated for two groups – males and females separately. Thus, the gap of means and standard deviations between these two groups for each variable are calculated and indicated in the table as percentage change. Positive percentage values are indicating an increase while negative percentage values are indicating a decrease.

The descriptive statistics results show that in our sample data, the percentages of high educated and low educated participants for male and female employee groups are almost the same –females' average education is equal to 0.37 and males' average is equal to 0.38. If we look at percentage change, the mean gap for education variable is negative 3 %; and standard deviation gap is positive 3% in favor of female employees. However, for the variable of work experience, there is a mean gap of 10 % in favor of males. It shows that male respondents have 10 % more work experience than female respondents. The mean value of the self-development criteria for males is 12 % more than females' and the standard deviation of the same variable for male employees is 5 % more than female employees'. The next variable which is number of the career breaks by employees indicates significant differences between two groups –females' average number of career

breaks is 74% more than males'; and females' average standard deviation for that variable is 42% more than males'. In addition, this summary statistics shows that the number of men being in managerial position is more than the number of women; and the percentage change for the mean of this variable is equal to 20%. Similarly, extent of self-selection by female employees is so near to the extent of self-selection by men; women's extent of self-selection is 0.01% less than men's but their standard deviation is 0.48 % less than men's.

Table 2: Mean and Standard Deviation Data of Independent Variables

Independent Variables	**Mean**			**Standard Deviation**		
Gender	**Female**	**Male**	**Gap**	**Female**	**Male**	**Gap**
educational level	0.37	0.38	- 3%	0.49	0.48	3 %
experience	6.62	7.33	-10%	4.89	4.62	6%
self-development	5.26	5.97	-12%	4.08	4.27	-5%
career breaks	0.94	0.54	74%	0.99	0.7	42%
managerial position	0.56	0.7	-20%	0.46	0.5	-8%
self-selection	0.81	0.82	-0.01%	0.13	0.25	-0.48%



7.2. Difference in Difference Estimation Results

The results of the second method which is Difference in Difference technique help to estimate causal effect of independent variables between two different groups – male and female employees. Difference in difference mainly is implemented in order to analyze the impact of particular treatment or condition by comparing the changes in the group outcomes. All independent variables are used in order to find out their casual effects on dependent variable – income with the help of Difference in Difference estimation method.

Firstly, difference in difference method is applied for the educational level of employees that can have an effect on gender pay inequality. Average income of male and female workers with higher and lower educational level is compared:

(Mean income of males with higher educational level – Mean income of males with lower educational level) – (Mean income of females with higher educational level – Mean income of females with lower educational level) = (2239 – 1931) – (1594 – 1321) = 35

This calculation indicates that there is a 35AZN gap in income level between male and female employees. It supports the first hypothesis that differences in educational achievements among employees result in more gender wage inequality. Consequently, in our sample data male employees possess higher educational level and earn more than female employees.

The Difference in Difference estimation method is applied to the second independent variable which is work experience of male and female employees. The number of years that employees have been working can have a causal effect on their income level, therefore this variable also should be analyzed in the same way:

(Mean income of males having more work experience – Mean income of males having less work experience) – (Mean income of females having more work experience – Mean income of females having less work experience) = (2858 – 1317) – (2161 – 836) = 216

The sample is divided into two part of high experienced worker who have up to 7 years' experience and less experienced workers who have more than 7 years' experience for both groups –males and females. As a result, by comparing mean income differences, it has been found that there is 216 AZN gap between male and female employees. As stated in the second hypothesis, male employees are indicated as having long career, consequently they earn more monthly income compared to females.

The number of hours spent on personal development of the employees is another factor that should be considered. The difference in amount of time that male and female employees spend on their self-development and their income are measured:

(Mean income of males spending more time on self-development – Mean income of males spending less time on their self-development) – (Mean income of females spending more time on self-development – Mean income of females spending less time on their self-development) = (2454 – 1743) – (1571 – 1359) = 500 AZN

This calculation indicates that there is 500 AZN income gap between males and females if the amount of time spent on their self-development is considered. Using up to 7 hours is considered as the case of spending more time on self-development using more than 7 hours are stated as spending less time on it. Appling difference in difference techniques supports the third hypotheses as well – spending more time for achieving personal development reduces gender pay inequality.

Furthermore, the number of career breaks have been taking by employees is also estimated for discovering the causal effect of this variable. However, the relationship as claimed in the hypothesis is not supported by this variable:

(Mean income of males who have taken career breaks – Mean income of males who have not taken career breaks) – (Mean income of females who have taken career breaks – Mean income of females who have not taken career breaks) = (2224 – 1895) – (1588 – 1192) = – 67

In addition, another factor affecting gender wage gap is having experience in managerial or executive positions. Using difference in difference method helps to compare income changes of males and females by considering working in management o not:

(Mean income of males working in managerial positions – Mean income of males not working in managerial positions) - (Mean income of females working in managerial positions – Mean income of females not working in managerial positions) = (2486 – 1687) – (1785 – 1102) = 117 AZN

It shows that the number of male employees who have been holding managerial positions is more than female employees. Since employees who hold higher positions earn more income, the factor of working in higher managerial positions by males broadens the pay gap between males and females. As a result, it supports our fifth hypothesis related to working in managerial positions.

Lastly, it has been checked that how the extent of self-selection criteria is related to gender pay inequality. The difference between mean income of male and female employees is calculated with the effect of self-selection criteria:

(Mean income of males with positive self-selection – Mean income of males with negative self-selection) – (Mean income of females with positive self-selection – Mean income of females with negative self-selection) = (2315 – 1630) – (1680 – 995) = – 1

Our data shows that male and female employees has the same level of self-selection – number of males who think that they are well-paid according to their skills, competencies

and tasks that they do. Therefore, applying difference in difference method to this variable indicate that our last hypothesis related to the level of self-selection is rejected.

7.3. Blinder – Oaxaca Decomposition Results

Blinder – Oaxaca decomposition is the specific methodology in order to analyze wage differentials between groups based on gender, race and etc. Firstly, one type of Blinder – Oaxaca decomposition which is called as the threefold decomposition is conducted, and the results of it are shown in the Table 3. Group 1 indicates male employees whereas group 2 indicates female employees; and this decomposition is done in the 95% confidence interval. The income variable is transformed to log income variable – "lnincome". Threefold decomposition method divides the existing pay gap into two groups – male and female employees and is explained by differences in independent variables but some parts of it are not explained by these differences.

Table 3: Threefold decomposition results:

```
Blinder-Oaxaca decomposition                  Number of obs     =        253
                                                Model           =     linear
Group 1: gender = 0                             N of obs 1      =        127
Group 2: gender = 1                             N of obs 2      =        126
```

lnincome	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
overall						
group_1	7.412978	.0665643	111.37	0.000	7.282514	7.543442
group_2	6.978419	.0735983	94.82	0.000	6.834169	7.122669
difference	.434559	.0992347	4.38	0.000	.2400626	.6290555
endowments	.118781	.0847301	1.40	0.161	-.0472869	.2848489
coefficients	.3020434	.0715986	4.22	0.000	.1617127	.4423741
interaction	.0137346	.046142	0.30	0.766	-.076702	.1041713

Threefold decomposition method estimates special regression model for two groups and provides decomposition. The results show that the mean of the log income (lnincome) is 7.41 for group 1 – male employees while the mean of the log income is equal to 6.98 for group 2 –female employees, and a wage gap of 0.44 exists. In addition, this gender gap is divided into three parts – endowments, coefficients, and interaction. Endowments are equal to 0.12 and indicate the mean increase of females' salaries if they owned the equal characteristics with males. Thus, approximately 30% of the wage gap is accounted by differences in the independent variables as education, work experience, career breaks and so on. Furthermore, coefficients illustrate change in females' salaries if males' coefficients are applied to the females' characteristics. The data of threefold decomposition method shows coefficients that are equal to 0.302; and it constitutes 68% of the wage gap. The third component of this decomposition is the interaction part which measures the impact of distinction in endowments and coefficients happening at the same time and equals to 0.01 –covering 2% of the observed wage gap.

The other method is Twofold decomposition method which consists of three parts – observed gap between two groups, explained and unexplained parts of this difference. Similarly, the results of twofold composition are that the wage gap between average log income of male and female employees is equal to 0.44. According to the Table 4, explained part of the wage gap is 0.13; and it illustrates that 30 % of the wage gap is accounted by differences in endowments. Thus, the 70 % of the wage gap is related to unexplained part meaning due to other reasons such as discrimination.

Table 4: Twofold decomposition results

```
. oaxaca lnincome educ exp selfdev careerbrk management selfselect, by (gender) pooled

Blinder-Oaxaca decomposition                  Number of obs     =       253
                                                Model           =    linear
Group 1: gender = 0                             N of obs 1      =       127
Group 2: gender = 1                             N of obs 2      =       126
```

lnincome	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
overall						
group_1	7.412978	.0658911	112.50	0.000	7.283834	7.542122
group_2	6.978419	.0727829	95.88	0.000	6.835767	7.121071
difference	.434559	.0981783	4.43	0.000	.242133	.626985
explained	.1256306	.0771083	1.63	0.103	-.0254988	.27676
unexplained	.3089284	.0640407	4.82	0.000	.183411	.4344459

The separate results for each independent variables' characteristics – endowments, coefficients, and interactions are illustrated. It helps to clearly identify the effects of each independent variable on the observed wage gap between two groups. The table 5 shows the separated portions of each independent variable in endowments, coefficients, interaction, explained and unexplained factors. These results prove that measured pay gap is explained by educational level, experience, being in management, and the extent of self-selection. In contrast, the independent variable of career breaks is not explained as indicated in the hypothesis because it has been claimed that more number of career breaks reduces income level and increases gender pay gap. However, Oaxaca-Blinder decomposition results show that its explained part is positive, actually it should be negative in order to support out hypothesis.

Table 5: Oaxaca decomposition results for independent variables

Independent Variables	Endowments	Coefficients	Interaction	Explained	Unexplained
educational level	0.0002	- 0.015	0.0004	0.00007	- 0.015
work experience	0.061	0.119	0.013	0.069	0.124
self-development	0.009	0.074	0.001	0.013	0.079
career breaks	- 0.019	- 0.085	0.036	0.003	- 0.07
self-selection	0.0003	- 0.275	- 0.0001	0.0001	- 0.275
managerial position	0.068	0.225	- 0.045	0.041	0.207

In addition, the results of twofold method of Oaxaca – Blinder decomposition illustrate that 70 % of the observed wage gap belongs to the unexplained part of the decomposition. It means that higher portion of the gap is not because of the differences in independent variables or individual characteristics of male and female employees. These individual characteristics as educational level, number of career breaks, number of hours spent on self-development and etc have little impact on wage gap between males and females in our sample compared to the impact of unexplained part. Unexplained part can be described as discrimination toward male and female employees. Thus, male and female employees are paid and compensated differently due to discriminatory approach toward them more compared to the differences in their individual characteristics.

8. Discussion

In this research, measuring only unadjusted gender pay gap can be misleading since there can be other factors making this gap increase. The various causes of the difference in average salaries of male and female employees as a group can be valid explanations for it. Males and females may have a job with distinctive job roles inside companies and can be represented in discriminatory way. For instance, pay system or job requirements for administrative assistants and software engineers are different for most of the workplaces (Chamberlain, 2017). Consequently, such different conditions may cause the gender wage gap to increase. Therefore, it is crucial to investigate adjusted gender wage gap and analyze differences in independent variables and their relationship with the dependent variable which is wage gap.

Descriptive analysis of our data illustrates that to what extent individual characteristics of male and female employees differ in our sample. For instance, it has been found that educational level of male employees is so near to the educational level of female employees. Consequently, educational level of employees may contribute less impact on observed gender pay inequality. However, there is crucial difference in work experiences – males possessing a long time career while females having less work experience in their career.

Similarly, according to the descriptive analysis of our sample data, male employees working in bank industry are indicated to spend more time on developing their personal skills, competencies, as well as obtaining new ones compared to female employees. It can restrict female employees to find well-paid jobs and better workplaces.

In addition, as it is expected number of female workers who have taken career breaks is significantly higher than male workers. It can be due to the fact that women have more responsibilities related to the marriage, children care, and so on.

Furthermore, male employees have been holding managerial positions more but female employees do not have so much work experience in management. Therefore, it also can affect the income level of female employees working in banking sector. The analysis of the last variable – self selection criteria shows that almost the same amount males and female employees think that they are well-paid according to their personal skills and capabilities. It means that their self-selection level is so near to each other. Despite the fact that female employees earn less than male employees, most females think that this amount of payment is good considering their abilities and competencies.

Applying Difference in Difference estimation and Oaxaca-Blinder decomposition to these variables provides more detailed explanation. It has been found that educational level has the particular effects on gender pay inequality. Since male employees have higher educational level than female employees, the gap in monthly income between these two groups exists. However, this difference is so small that have less impact on the gender pay gap. Thus, Pettit and Hook (2009) also have been found that since males get more freedom and opportunities for achieving academic successes and achieve higher educational level, the wage gap between males and females occurs.

Another factor affecting observed gender pay gap is work experience of employees. By using Difference in Difference estimation as well as Oaxaca-Blinder decomposition methods, it has been found that work experience is negatively related with

the gender pay gap. When the female employees are more experienced, they get higher level of income and consequently the pay gap can decrease. In our sample data, male employees have longer career while females have less work experience, therefore there is a gap between their earnings. Similarly, Sierminska and Grabka (2010) have examined that women have less work experience and participate in labor market less due to possessing more family responsibilities and spending more time on family or children caring more rather than career. Thus, Bardasi and Gornick (2008) also have described that men get full-time jobs more while women prefer part-time jobs because of reasons as childbearing. Consequently, men possess more job experiences and get higher wages.

Moreover, the results of our analysis prove that more hours spending on self-development by employees negatively impact on pay inequality between males and females. Participants who have been spending more amount of time on improving their skills and competencies earn more. Our data analysis shows that since males use more time on the development of their personal skills they get higher earnings compared to women, consequently the income gap between them occurs. Blau and Kahn (2007) have investigated the reasons of gender wage gap and found out that gender differences in human capital is one the crucial reasons. They discovered that women are mainly interrupted by the reasons as family issues, for that reasons they cannot focus on improvement of their personal abilities and obtain new work competencies. However, in contrast while comparing the effects of taking career breaks on male and female employees, no relationship has been found and our hypothesis that the number of career breaks is positively related with the gender wage inequality is rejected.

The next finding of our study is related to the being in managerial positions and its affect on gender wage gap. It has been found that less number of females holds managerial positions, therefore the income gap between male and female employee is observed. Since males have more chances to work in management, they earn higher monthly wages. It can be because of fact that throughout their career women practice more career interruptions than males and cannot rise in their career or because of the perception that males are better in management and being in executive positions while women do not possess such skills. Similarly, Cohen and Huffman (2007) have conducted a research and findings from three-level hierarchical linear models have suggested that more representation of female workers in management narrows the gender pay inequality. Consequently, they have suggested that females should be promoted by managerial positions in order to reduce gender pay gap.

The findings from our data analysis reject our last hypothesis related to the extent of the self-selection by male and female employees. It has been claimed that women mostly have negative self-selection – unfavorable thinking about their competencies, and therefore they are less enthusiastic for getting better jobs. In contrast, men believe in their skills more and are more passionate for better job opportunities. However, results show that in our sample data, males and females possessed the same level of self-select and so much difference in mean income has been observed.

Furthermore, analyzing Oaxaca-Blinder decomposition results shows that the gender pay gap in our sample is explained by educational level, work experience, self-development, being in management and self-selection criteria. However, for all these variables unexplained part is more than explained part. It means that there are the

significant effects of other reasons that cannot be explained. Such reasons are usually discrimination as well as biased perceptions toward female workers in the workplace or in the society that restricts them to improve career and achieve better paid jobs. A similar research has been conducted by Sayers (2012) and it has been found out that the effect of marital status is considered there is still remained gap. His further research has proved that it is because of social factors – unconscious prejudice and perceptions toward competences and role of women in the society. Especially, in Azerbaijan such perceptions are highly observed.

For instance, Azerbaijan Human Development report done by UNDP (2007) explains that the stereotype related to the men as having a role of breadwinner and their ability and responsibility to support their family and children is so strong in Azerbaijan. The report has included survey and observational results in order to support this claim. For instance, in this report, the arguments of focus groups are stated as "A man has to work. He has to bring bread money home. A man has to take care of his family. Women don't have to work". Similarly a male respondent argued, "A man has to bring what is necessary for the house. Money brought by a woman is nothing. It results in disputes within the family"(p 21). Such stereotypes and discrimination can be the causes of women having less chance to get better paid jobs and higher positions; consequently the gender pay gap occurs.

9. Conclusion

This research aimed to measure and find out the causes of gender pay inequality in the banking sector of Azerbaijan. The data was collected through conducting surveys among male and female employees working in the various banks located in Azerbaijan. The quantitative analysis of the data proved that our certain hypotheses had been proved including arguments related to the educational level, work experience, self development, and being in the management. Firstly, it was proved that educational level of the employees was negatively related with the gender pay gap – since males were higher educated than females, the gap in monthly earnings between these men and women exists. Secondly, it had been observed that male employees have more work experience than female employees, and this work experience was negatively related with the gender pay inequality. It can be explained with the fact that females usually take more family and child responsibilities and can not put so much effort on the career. Furthermore, our research results showed that more hours spending on self-development by workers had negatively effect on wage gap between men and women. Employees, who had been investing more time on developing their abilities and knowledge, get higher income. Our analysis illustrated that since men invest more time on the improvement of their personal competences, they earned higher income compared to females; therefore the income gap between these two groups occurred. Thus, being in managerial positions and its affect on gender wage gap were discussed as well. It was found that less number of females held managerial positions, therefore the wage gap between men and women was observed. Since men had more chances to work in management, they earned higher monthly income.

Moreover, two hypotheses of this research which was related to the number of career breaks as well as the action of the self selection and their relationship with the gender pay inequality were rejected. It was found that number of females taking career breaks during their career was higher than the number of males; however there was not the particular effect of it on the gender pay inequality between males and females. Thus, it was analyzed that male and female employees possessed the same level of self-selection toward their skills, competences and income, and the relationship between their self-selection level and pay gap had not been found.

Lastly, our analysis helped to understand that besides such individual differences including educational level, work experience, time spent on self-development, and being in managerial positions, there were also unexplained factor of the observed wage gap which is discrimination. The higher portion of the wage gap in our sample data was explained by unexplained part – discrimination rather than explained part. Therefore, based on these conclusions, the wage gap between male and female employees working in banking sector of Azerbaijan should be analyzed by considering discriminatory practices as well in addition to the individual and job-related difference between males and females.

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Appendices

Oaxaca – Blinder decomposition (Threefold decomposition) results:

```
. oaxaca lnincome educ exp selfdev careerbrk management selfselect, by (gender) noisily

Model for group 1
```

Source	SS	df	MS	Number of obs	=	127
				F(6, 120)	=	32.60
Model	43.1227283	6	7.18712138	Prob > F	=	0.0000
Residual	26.4563161	120	.220469301	R-squared	=	0.6198
				Adj R-squared	=	0.6008
Total	69.5790443	126	.552214638	Root MSE	=	.46954

lnincome	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
educ	-.0183667	.090179	-0.20	0.839	-.1969148	.1601814
exp	.104084	.0098731	10.54	0.000	.084536	.1236319
selfdev	.0263001	.0101546	2.59	0.011	.0061946	.0464055
careerbrk	-.0421127	.0601431	-0.70	0.485	-.1611918	.0769663
management	-.1618722	.0892267	-1.81	0.072	-.3385349	.0147906
selfselect	.0903738	.03632	2.49	0.014	.0184628	.1622848
_cons	6.358415	.1468617	43.30	0.000	6.067639	6.649191

Model for group 2

Source	SS	df	MS	Number of obs	=	126
				F(6, 119)	=	28.15
Model	49.0256239	6	8.17093731	Prob > F	=	0.0000
Residual	34.5457779	119	.290300655	R-squared	=	0.5866
				Adj R-squared	=	0.5658
Total	83.5714018	125	.668571214	Root MSE	=	.5388

lnincome	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
educ	.0222529	.1071153	0.21	0.836	-.1898461	.234352
exp	.086087	.0114489	7.52	0.000	.0634171	.1087569
selfdev	.0121763	.0130058	0.94	0.351	-.0135766	.0379291
careerbrk	.0482636	.0538799	0.90	0.372	-.0584239	.1549511
management	-.4845096	.111423	-4.35	0.000	-.7051382	-.263881
selfselect	.1878688	.0454394	4.13	0.000	.0978942	.2778434
_cons	6.100274	.1796975	33.95	0.000	5.744455	6.456093

```
Blinder-Oaxaca decomposition                    Number of obs     =        253
                                                  Model           =     linear
Group 1: gender = 0                               N of obs 1      =        127
Group 2: gender = 1                               N of obs 2      =        126
```

lnincome	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
overall						
group_1	7.412978	.0665643	111.37	0.000	7.282514	7.543442
group_2	6.978419	.0735983	94.82	0.000	6.834169	7.122669
difference	.434559	.0992347	4.38	0.000	.2400626	.6290555
endowments	.118781	.0847301	1.40	0.161	-.0472869	.2848489
coefficients	.3020434	.0715986	4.22	0.000	.1617127	.4423741
interaction	.0137346	.046142	0.30	0.766	-.076702	.1041713

Oaxaca – Blinder decomposition (Twofold decomposition) results:

```
. oaxaca lnincome educ exp selfdev careerbrk management selfselect, by (gender) pooled

Blinder-Oaxaca decomposition                    Number of obs     =        253
                                                  Model           =     linear
Group 1: gender = 0                               N of obs 1      =        127
Group 2: gender = 1                               N of obs 2      =        126
```

lnincome	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
overall						
group_1	7.412978	.0658911	112.50	0.000	7.283834	7.542122
group_2	6.978419	.0727829	95.88	0.000	6.835767	7.121071
difference	.434559	.0981783	4.43	0.000	.242133	.626985
explained	.1256306	.0771083	1.63	0.103	-.0254988	.27676
unexplained	.3089284	.0640407	4.82	0.000	.183411	.4344459
explained						
educ	.0000772	.0008366	0.09	0.927	-.0015626	.001717
exp	.0691994	.0580654	1.19	0.233	-.0446067	.1830054
selfdev	.0129559	.0112538	1.15	0.250	-.0091011	.0350129
careerbrk	.002641	.0145917	0.18	0.856	-.0259582	.0312403
management	.040569	.0195761	2.07	0.038	.0022006	.0789373
selfselect	.0001881	.0195827	0.01	0.992	-.0381933	.0385695
unexplained						
educ	-.0153516	.0496371	-0.31	0.757	-.1126385	.0819353
exp	.1243374	.1083013	1.15	0.251	-.0879294	.3366041
selfdev	.0799458	.0924546	0.86	0.387	-.1012619	.2611535
careerbrk	-.0707204	.0527916	-1.34	0.180	-.1741901	.0327493
management	.2073232	.0785661	2.64	0.008	.0533366	.3613098
selfselect	-.2747467	.1502163	-1.83	0.067	-.5691652	.0196718
_cons	.2581408	.2317213	1.11	0.265	-.1960246	.7123062