DISPARITY IN THE EMPLOYMENT SPHERE: THE MEASUREMENT OF PAY GENDER DISPROPORTION

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Abstract

The labour price or the compensation for work as a fundamental basis of any working activity influences the labour market actors' behaviour. The level and structure of pay along with labour costs are significant macro-economic indicators, which are widely used by different political, social and economic institutions to assess situation on the labour market and define labour market macroeconomic policy. A managerial theory and managerial practices considers the compensation for work as significant factor of job motivation.

Today, when women play vital role in employment sphere the gender gap in the work reward still exists. The article considers the direct correlation between the gender pay disproportion and gender-gap-reasons-based disparity in the employment sphere. For the calculation and analysis of the pay gender disproportion the author introduces two indexes: the Index of Pay Gender Differentiation (PGD) and the Index of Pay Gender Gap (PGG).

The Index of Pay Gender Differentiation (PGD) expresses not only the existing relation between men's and women's pay but defines the dynamics for their closing on. The using of the Pgd promotes to define the direction for attain of gender equality on the employment sphere and a priori assumes to overcome the source of gender inequality in the labour market.

The Index of Pay Gender Gap (PGG) shows pay deviation from ideal gender pay equilibration.

Key words: *gender, labour market, labour price, pay disproportion, index of Pay Gender Differentiation (PGD), Index of Pay Gender Gap (PGG).*

Introduction

The gender disproportions of employment sphere – is a widely held problem. which faced all countries at the world. Gender disproportions are expressed in the gap of representation of men and women in executive positions, unequal career opportunities, and job enter possibilities etc. All kinds of gender disparity in an employment sphere approve oneself in the pay gender differences.

There is no common opinion on the reasons of the existence of differences between women's and men's employment in economic literature. After decades of research, most investigators agree that there are many potential reasons why men and women may differ in the employment sphere.

The conventional explanations of gender disparities in an employment include discrimination (Eaye, Stockdale 2007; Jaffee, Hyde 2000) i.e. any distinctions in norms of remuneration and promotion possibilities at identical personal characteristics (Spence1993, p.18), biological differences (Goodman, Estioko-Griffin,Grove 1985), differences in a human capital and abilities (Bekcer 1964; Narcy, Lanfranchi, Meurs 2009; Jaffee, Hyde 2000 etc), preferences for work field and working hours (Bekcer 1964; Bielby and Bielby 1989; Glick

P. 1991; Pearson, Chatterjee 2002), motivations (Green2004, Arnania-Kepuladze2009,2010), differences in competition entry (Gneezy 2006, Price 2008; Van 2007) etc. If generalised the common explanations, it is possible to define two groups of the gender gap reasons: discrimination (D) and differences between gender groups (GD).

All of the eventual explanations of gender employment disproportions in a varying degree influence the pay gender disparity. The author considers the direct correlation between the gender-gap-reasons-based (D, GD) disparity on the labour market (LMD) and gender pay disproportion (GPD): (D, GD) => LMD => GPD.

So, through labour market gender disparity the gender pay disproportion is functionally related to discrimination D, differences in human capital H, preferences P, motivation M, competitiveness C etc.: GPD = *f* (D, H, P,V,C …)

The closing of the pay gap could be achieved through the elimination of all kinds of gender disparities on all fields of an employment sphere. Such sight on the issue calls to pay more attention to elaborate the theoretical and methodological approaches toward the analyses of gender pay disproportions as an indicator of labour market gender equality.

The Role of Labour Price in the Economic Theory and Managerial Practice

The compensation for work is a fundamental basis of any working activity and significant factor, influenced employers' and employees' behaviour.

The classical microeconomic theory views a price as a main determinant of demand and supply: the demand-and-supply model of price determination – still remain to be the most widespread model of a modern economic science. This model is widely applied to the analysis of the goods/services markets as well as to markets of factors production, including labour market analysis. The labour price is viewed as a main determinant of labour demand and supply and predetermines the features of economic behaviour of labour market actors.

The level and structure of pay along with labour costs is significant macro-economic indicator, which is widely used by different political, social and economic institutions to assess situation on the labour market and define labour market macroeconomic policy.

A managerial theory as well as managerial practices considers the labour price as one of important kinds of work reward and as significant factor of motivation. When employee is sure that his or her efforts lead to fair reward, the employee is more effective. The belief of justice of reward increase employee's effort and therefore productivity. But if an individual feels that his/her efforts are not rewarded equally, he/she reduces the efforts. Therefore, the problem of effort-reward commensurability becomes very important for effective usage of human resource and increase the job productivity.

As far as gender approach to analyses of the labour market issues and in particular gender pay disproportion in the employment sphere is relatively new direction of social, economic etc investigations, it calls to elaborate the certain theoretical and methodological ways for their study. The given paper presents the author's viewpoint regarding to investigation the gender pay disproportion on the labour market.

Indexes of Gender Pay Disproportions

For definition of pay gap between men and women in the labour market usually parameter is the Gender Pay Gap (GPG), which "is defined as the difference between average gross hourly earnings of male paid employees and female paid employees, expressed as a percentage of average gross hourly earnings of male paid employees." (Eurostat yearbook 2011, P. 251), i.e. it is the relation between the level of pay of women and the pay of men, expressed in per cent.

Such approach expresses only the existent situation but does not give the vector of its change.

For the purpose to express the direction of gender pay disproportion GPD overcoming, the author offers to use two indexes: *Index of Pay Gender Differentiation* (PGD) and the *Index of Pay Gender Gap* (PGG).

Index of Pay Gender Differentiation **(PGD)** is a parity of pay of female (Pf) to pay of male (Pm). The *Index of Pay Gender Differentiation* (PGD) expresses not only the existing proportion between men's and women's pay but defines the dynamics for their closing on. It means, that this factor facilitates the gender analysis of the level of wages and allows to track the vector of its change. The using of the *Index of Pay Gender Differentiation* (PGD) promotes to define the direction for attain of gender equality on the employment sphere and a priori assumes to negotiate the source of gender inequality in the labour market:

$$\begin{cases} \mathrm{PGD} = \dfrac{Pf}{Pm} \to 1, \\ \mathrm{PGD} > 0 \\ \mathrm{P}m,\ \mathrm{P}f > 0 \end{cases} \tag{1}$$

Where PGD - is the Index of Pay Gender Gap, P*f* - is female's pay, P*m* - is male's pay.

Given index shows the correlation between men's and women's pay which should tend to one. In an ideal case the Index of Pay Gender Differentiation should come near or be equal to 1.

When PGD = $\dfrac{Pf}{Pm}$ =1, the Index of Pay Gender Differentiation expresses pay gender equality or the ideal situation in the employment sphere when men's pay equals to women's pay P*f*= P*m*. If the given factor is below 1 or if PGD < 1 it means that men's pay exceeds women's pay. In case when the given factor is higher than 1 or when PGD > 1, it means that women's pay exceeds men's pay. Both situations express the gender pay disproportion on the labour market: in the first instance the gender disproportion of pay is in favour of men and in the latter case - in favour of women.

For the definition of gender disproportion magnitude the Index of Pay Gender Gap may be used.

Index of Pay Gender Gap (PGG) shows pay deviation from ideal (PGD=1) gender pay equilibration. The Index of Pay Gender Gap calculation based on the Index of Pay Gender Differentiation and expresses the quantity of gap in pay of men and women (formula 2) which should be closed (formulas 3-1 and 3-2):

$$\mathrm{PGG} = \pm\,|1 - \mathrm{PGD}\,| \tag{2}$$

$$\mathrm{PGG} = \pm\,|1 - \mathrm{PGD}\,| \to 0 \tag{3-1}$$

$$\mathrm{PGG} = \pm\,|1 - \frac{Pf}{Pm}| \to 0 \tag{3-2}$$

The modulus|1–PGD| shows the absolute value of deviation from ideal gender pay situation. The marks (±) show the direction of deviation: the mark (-) means a deviation of gender pay gap in favour to women and mark (+) means a deviation of gender pay gap in favour to men.

The formula (2) expresses an actual gender pay deviation from gender-equilibrium balance.

The formulas (3-1) and (3-2) express the desirable direction of change the existing situation and the fall into the category of normative economics.

It means that Index of Pay Gender Gap should tend to zero or when Index of Pay Gender Gap (PGG) equals to 0, there is no gender gap in men and women job pay.

The Index of Pay Gender Gap (PGG) means, that as closer is the index to zero as less is the pay gender gap and the labour market is nearer to close the gender pay inequality.

The examples of the Index of Pay Gender Differentiation (PGD) calculation for the selected countries are given in the Table 1.

Table 1. Index of Pay Gender Differentiation (PGD) and its Analyses.

Differentiation in favour to …	PGD < 1 or PGD > 1	PGD*	Country
Men	PGD < 1	0.60	Azerbaijan
Men	PGD < 1	0. 61	Armenia
Men	PGD < 1	0.79	Belgium
Men	PGD < 1	0. 61	Brazil
Men	PGD < 1	0.70	Bulgaria
Men	PGD < 1	0.65	Czech
Men	PGD < 1	0.87	Denmark
Men	PGD < 1	0.66	Egypt
Men	PGD < 1	0.85	Finland
Men	PGD < 1	0.83	France
Men	PGD < 1	0.60	Georgia
Men	PGD < 1	0.76	Germany
Men	PGD < 1	0.73	Hungary
Men	PGD < 1	0.72	Iceland
Men	PGD < 1	0.61	Japan
Men	PGD < 1	0.81	Latvia
Men	PGD < 1	0.70	Lithuania
Women	PGD > 1	1.08	Paraguay
Men	PGD < 1	0. 92	Philippines
Women	PGD > 1	1.42	Qatar
Men	PGD < 1	0.91	Sweden
Men	PGD < 1	0.79	Switzerland
Men	PGD < 1	0.82	UK
Men	PGD < 1	0.62	Austria
Men	PGD < 1	0.70	Luxemburg

As it is shown on the given table nowhere Index of Pay Gender Differentiation equals to 1. It means that there are significant pay gender differences in all countries of the world. As well almost in all countries with exception to Paraguay and Qatar the Index of Pay Gender Differentiation is below that 1. It means that pay gender differences exists predominantly in favour to man and in Paraguay and Qatar the pay gender differences exists in favour to woman.

The value of deviation from gender pay equality is given on the Figure 1.

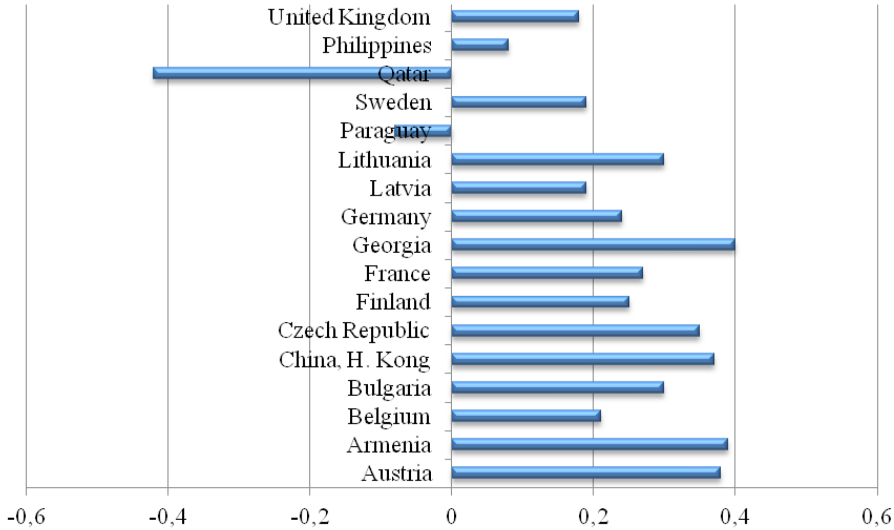

Figure 1: Pay Gender Gap.

As the figure shows, the largest absolute value of deviation from pay gap equilibrium exceeds in Qatar. Its' module (magnitude) equals 0.42. The mark (-) defines, that in Qatar the deviation from pay gap equilibrium exceeds in favour to women. The smallest value of deviation from pay gap equilibrium exceeds in Paraguay and Philippines and equals 0.8. But as the marks (+) and (-) show, in Paraguay the pay gender gap is in favour to women and in Philippines - in favour to men.

Proceeding from such analyses becomes more obvious in what direction should be developed the gender disparity overcoming policy. In the given case, in all countries with exception to Qatar and Paraguay, the policy should be focused on the supporting the women and in case of Qatar and Paraguay – to support the men. As far as there is more significant deviation from pay gap equilibrium in Qatar, it means that it claims more effort for its negotiation. Such approach can be applied to analyses gender pay disparity in economic branch, occupation, etc.

Conclusions

The gender disproportions of employment sphere – is problem for many countries. The conventional explanations of gender disparities in an employment include discrimination, differences in a human capital, abilities, preferences, motivation, and etc. There are the direct correlation between the gender-gap-reasons-based disparity on the labour market and gender pay disproportion. Therefore, the article considers the gender pay disproportion as a functionally related to employment gender disparity reasons and as an indicator of labour market gender inequality-equality. The closing of the pay gap is based on the elimination of all kinds of gender disparities in all fields of an employment sphere.

For the gender pay disproportions investigation of the Index of Pay Gender Differentiation (PGD) and the Index of Pay Gender Gap (PGG) are introduced. Both indexis provide the gender analysis of existing situation in the employment sphere and define the direction towards overcoming the gender inequality on the labour market. The Index of Pay Gender Differentiation (PGD) shows the correlation between men's and women's pay which should tend to an ideal level namely should come near or be equal to 1. The Index of Pay Gender Gap (PGG) shows gender wage deviation from ideal (PGD=1) gender pay equilibration. Both indexes can be calculated on the bases of wage per hour or day, weekly pay and for each economic branch, occupation as well as to economic in a whole.

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References

Arnania-Kepuladze T. (2010). Gender stereotypes and gender feature of job motivation: differences or similarity? *Problems and Perspectives in Management*, *8* (2), 84-93.

Arnania-Kepuladze T. (2009). *Working Men and Women in Georgia: Gender Wage Gap, Education Level and Work Motivation*. REV. CT, USA.

Becker, G. S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, Published by National Bureau of Economic Research, New York.

Bielby, W.T., Bielby, D. D. (1989). Family ties: Balancing commitments to work and family in dual earner households. *American Sociological Review, 54*, 776-789.

Comprehensive proposal for the composite entity for gender equality and the empowerment of women (A/64/588), New York, 2010.

Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). 1979.

Equality at Work: Talking the Challenges. Comprehensive proposal for the composite entity for gender equality and the empowerment of women (A/64/588), New York, 2010.

Eurostat yearbook - Europe in figures (2011). Luxembourg: Publications Office of the European Union.

Eaye, J. Rosby, Stockdale M. S. (2007). Understanding Sex Discrimination. In: *Sex Discrimination in the Workplace: multidisciplinary perspectives* / edited by Faye J. Crosby, Margaret S. Stockdale, S. Ann Ropp. Blackwell Publishing LTD.

Equality at Work: Talking the Challenges (2007). Global Report under the follow-up to the ILO Declaration on Fundamental Principles and Rights at Work, International Labour Conference, 96th Session, Geneva.

Glick, P. (1991). Trait-based and sex-based discrimination in occupational prestige, occupational salary, and hiring. *Sex Roles*, *25*, 351-378.

Gneezy, U., Kenneth, L. L., List, J. A. (2006). *Gender Differences in Competition: The Role of Socialization*. Retrieved on 20 March 2012, from http://www.iza.org/en/papers/1545_29062007.pdf.

Green, B. A., DeBacker, T. K. (2004). Gender and orientations toward the future: Link to motivation. *Educational Psychology Review*, 16, 91-120.

Jaffee, S., Hyde, J. S. (2000). Gender differences in moral orientation: a meta-analysis. *Psychological Bulletin*, 126, 703-726.

Narcy, M., Lanfranchi, J., Meurs, D. (2009). *Do women choose to work in the public and nonprofit sectors? Empirical evidence from a French national survey*. Unpublished. MPRA Paper No. 14372, posted 31. March 2009. Online at http://mpra.ub.uni-muenchen.de/14372/

Pearson, C. A. L., Chatterjee, S. R. (2002). Gender variations in work goal priorities: a survey of Chinese managers. *International Journal of Management*, *19* (4), 535-543.

Praice, J. (2008). Gender Differences in the Response to Competition. *Industrial & Labor Relations Review, 61* (3), 319-333.

Van, M., Cremer, D., Janssen Dirk, P. (2007). Gender Differences in Cooperation and Competition: The Male-Warrior Hypothesis. *Psychological Science*, *18* (1), 19-23.

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