

# Winnet Centre of Excellence® Series



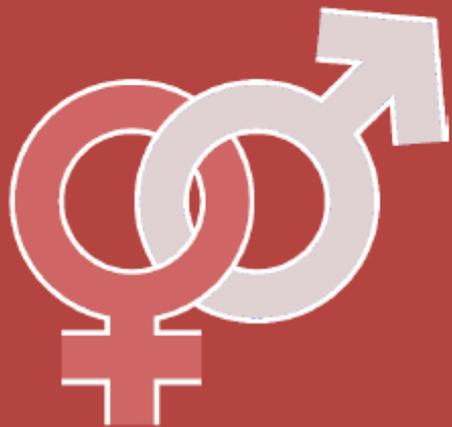
**Department of Marketing Management**

University of Kelaniya

**Development of Women**

**and Management**

**No. 2**



UNIVERSITY OF KELANIYA  
DEPARTMENT OF MARKETING MANAGEMENT

DEVELOPMENT OF WOMEN  
AND MANAGEMENT

Winnet Centre of Excellence® Series No. 2



Kelaniya 2017

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## INTRODUCTION

The Winnet Centre of Excellence® Series, issued in English, is an edited once a year continuous publication. Into the hands of readers we are placing second edition which is a collection of works devoted to the topic of development of women and management.

This monograph consist of seven chapters, which are the work of national and foreign authors. In the first chapter a statistical perspective of women in Research and Development is presented. In the second chapter the authors raise the problem of position of women in the real estate sector in Vietnam on the example of real estate agency. In chapter three authors describe business activity of women in European Union and East-Central Europe. The fourth chapter explores the problems of living standards of men and women in retirement across Selected European and Asian Countries. Chapter five aims to indicate that belonging to a socio-economic group of population is a determinant of household savings rate in Poland. The sixth chapter presents the impact of celebrity endorsement toward brand image with special reference to men's wear apparel in Sri Lanka. The last chapter – seventh – contains the analysis of women in co-creation in Poland and Sri Lanka.

We are honoured to express words of gratitude to all co-authors and the reviewers for their efforts and contribution towards this joint international publication.

Sandra Misiak-Kwit  
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## **CHAPTER 1**

### ***WOMEN IN RESEARCH AND DEVELOPMENT – A STATISTICAL PERSPECTIVE***

#### **1.1. Introduction**

Modern society is often called as information society, as it uses information and knowledge to a much greater extent than ever before. A wide range of economic, social and technological changes lead to substantial increase in knowledge utilization capacity, which together with science form essential factors for economic growth. There is a growing demand for knowledge and skilled workers. The increasing competition through creation of innovation and its successful placement on the market, requires continuous improvement of competence and assimilation of new knowledge. Achieving significant improvement in terms of innovation and efficiency require appropriate and systematic adjustments in all social and economic domains. Building a knowledge-based economy and ensure growth through the increase of competitiveness through innovation, require the provision of appropriate human resources for innovative activities, particularly for research and development activities. One of the key objectives of the

Europe 2020<sup>1</sup> Strategy is to increase spending on R&D activities in Europe up to 3% of Gross Domestic Product of the European Union (EU)<sup>2</sup>. It is assumed that it will be possible to achieve this ambitious goal primarily through improved access to financing for scientific research and innovation. This policy in effect should contribute to the creation of new jobs, increase of competitiveness and economic growth. One of the related, albeit less discussed dimension of this strategic objective is the issue of the human resources needed to implement the plans.

Major role in increasing innovation in the economy plays a highly qualified staff. The launch of innovative products, creating and absorbing new technologies and production processes requires appropriately trained specialists. The level of education, the development and quality of research institutions, to a large extent affect the growth of the innovation economy. This article aims to analyze the participation of women in human resources for science and technology, as well as R&D in Poland and in selected European countries, on the basis of available statistical data on employees in R&D, pointing to the challenges resulting from the strategic documents, particularly in terms of demand on the staff of research and development in Poland, against the background of trends in the international scale.

## **1.2. Data sources and methodology**

The results of the research on human resources in science and technology are usually presented in the studies of National Statistical Institutes, such as Central Statistical Office of Poland. These studies

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<sup>1</sup> Communication (COM(2010) 2020 final) – Europe 2020: A strategy for smart, sustainable and inclusive growth.

<sup>2</sup> See: Staśkiewicz J. (2011), for more on financing R&D in Poland.

are carried out in accordance with the methodological recommendations used in OECD countries and the EU, discussed in a series of OECD documents, known as the "Frascati Family", that includes manuals on R&D, innovation, human resources, technology, balance of payments, and patents as indicators of science and technology. In terms of human resources, two primary sources of statistics relate to human resources in science and technology, for which international methodological recommendations are presented in "Canberra Handbook" and R&D personnel, prepared according to the recommendations of "Frascati Manual"<sup>3</sup>.

Human resources in science and technology (HRST) consist of people currently involved in or potentially taking up work related to the creation, development, dissemination and application of scientific and technical knowledge. HRST are identified in two ways: the first classifies the workforce into the field of science and technology, according to the education; in the second the classification is based on profession. In the first case it is recommended to use the ISCED-2011 classification (International Standard Classification of Education), which determines the level of formal education. According to this classification, the HRST population includes people with formal education known as third-level education. ISCED-F 2013 classification of Fields of Education and Training is supplementary. In the second case it is recommended to use the ISCO-08 classification (International Standard

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<sup>3</sup> In 2015 OECD published a new revision of the manual: OECD (2015), Frascati Manual 2015: Guidelines for Collecting and reporting Data on Research and Experimental Development, OECD Publishing, Paris.

Classification of Occupation), which determines the types of occupations. The main sources of data in this view are labour force surveys. Specifically, HRST include persons who fulfill at least one of the following conditions: completed third-level education in a science and technology (S&T) field of study, i.e., education at the level 5A, 5B or 6 of ISCED 97, or are not formally qualified, nonetheless are employed in a S&T occupation where such education is normally required. Both classifications, i.e. according to education and occupation, are usually combined, to offer some specific subgroups of human resources, especially one called Core Human Resources in Science and Technology (HRSTC) covering those with third-level education (ISCED 2011 at the level 5-8) and are employed in S&T (ISCO group 2 and 3).

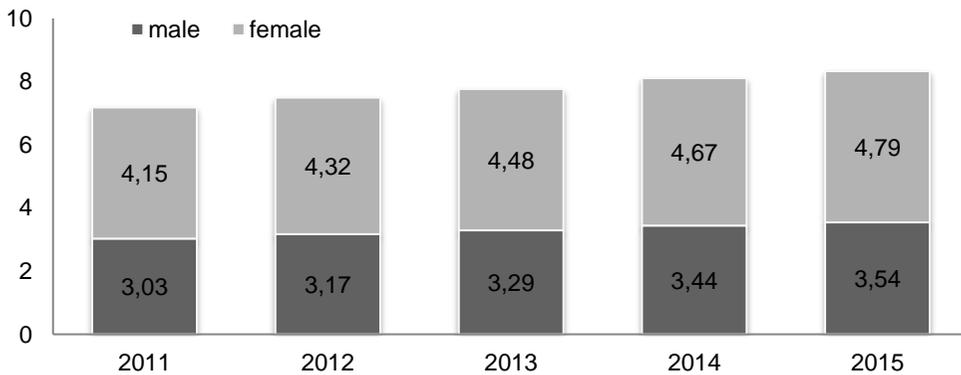


Figure 1.1 Human resources for science and technology in Poland by gender (in millions)

Source: Science and Technology in Poland in 2015. Central Statistical Office, Statistical Office in Szczecin 2016.

An example of the HRST statistics is presented on figure 1.1. In 2015 human resources for science and technology in Poland consisted of 8.3 million people, of which women accounted for 57.5%. However,

the remainder of the paper will be based on the second source of information related to human capital, i.e. R&D personnel statistics. This includes all persons directly related to R&D activities, both professional staff and supporting staff, and according to manual recommendations, it is assumed that employees directly involved in the R&D spend on this activity at least 10% of their total working time. The sources of information in this case are R&D surveys carried out generally by National Statistical Institutes. Specifically, R&D personnel covers all persons employed directly on R&D as well as those providing direct services such as R&D managers, administrators and clerical staff. As in previous case, two approaches may be used to classify R&D personnel, i.e. by level of education or by occupation. According the first one, the following categories are often used in Poland: persons with professor title (ISCED 6), persons with habilitated doctor degree (ISCED 6), persons with PhD degree (ISCED 6), other persons with tertiary education (ISCED 5A+5B), persons with other education (ISCED 4 and lower). From the occupation perspective following categories are used internationally: researchers, technicians and equivalent staff, other R&D supporting staff. It's important to note, that recent revision of Frascati Manual broth in some slight refinements in the way the personnel is counted (from the perspective of formal link with employer), however these were not yet implemented by national authorities producing R&D statistics.

Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems and also in the management of the projects concerned. This covers groups like researchers, research and technical assistants, engineering

and technical assistants with third-level education, PhD students undertaking R&D activities, working at whole plethora of units, as research institutes, higher education institutions, private non-profit units, enterprises and others. Researchers are the most numerous group of R&D personnel. Technicians and equivalent staff employed in R&D, so particularly persons whose main tasks require technical knowledge and experience in one or more fields of engineering, physical and life sciences or social sciences and humanities. They participate in R&D by performing scientific and technical tasks involving the application of concepts and operational methods, normally under the supervision of researchers. Equivalent staff performs the corresponding R&D tasks under the supervision of researchers in the social sciences and humanities. Category of other R&D supporting staff covers skilled and unskilled craftsmen, secretarial and clerical staff participating in R&D projects or directly linked to conducting such projects. Employees on administrative or financial or human resources positions participating in R&D activities whose work is directly connected with R&D belong to this category, however personnel providing indirect services (like canteen, maintenance and security staff) is not included.

As not all persons engaged in R&D activities may be doing so full time, special conversion units, namely “full-time equivalents” (FTEs) are used to determine actual employment in R&D. One full-time equivalent (FTE) means one person-year devoted exclusively to R&D activities. Employment in R&D in full-time equivalents is generally measured based on the rate of working time devoted to R&D by particular employees within a reporting year to full working time on a particulate positions. Published statistics usually present both, head counts and

full time equivalents. It's important to note, that both measurements have merits and disadvantages. Head counts may easily be overestimated due to double counting, FTEs then seem to be more appropriate, however there're many problems in measurement, that may lead to less accurate numbers. Statistics presented here are based on head counts. More detailed guidance on calculating FTEs is presented in Frascati Manual.

### **1.3. Analysis**

Employment in R&D activity is examined in terms of the occupational groups and by level of education. In terms of education level are distinguished categories of persons from the title of professor with a habilitation degree, then the doctor, with higher education and those with other education. In terms of occupational groups are distinguished three categories: employees of scientific researchers, technicians and equivalent staff, and other staff associated with R&D. Researchers (researchers) are specialists in conceptual work and the creation of new knowledge, products, services, processes, methods and systems, as well as the management of research projects. Statistics on R&D personnel relates then directly to people engaged in research and development, not to a theoretical capacity expressed by HRST numbers. In terms of gender comparisons, this allows for actual assessment of female involvement. Figure 1.2 presents an example based on Polish data.

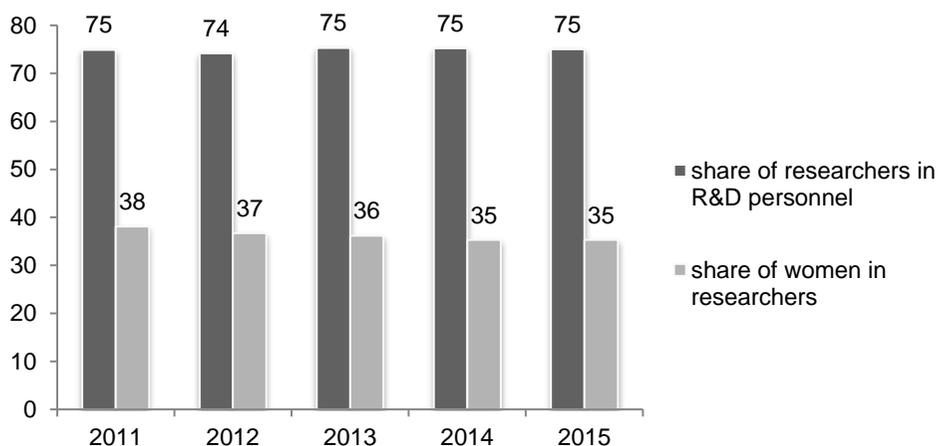


Figure 1.2. R&D personnel in Poland in 2011-2015.

Source: Science and Technology in Poland in 2015. Central Statistical Office, Statistical Office in Szczecin 2016.

The share of researchers in the total R&D personnel in Poland in 2011-2015 was around 75%, of which over 35% were women (see figure 1.2). It's important to notice, that the share of researchers among total R&D in Poland is relatively high, compared to other EU countries.

In order to provide some more comprehensive analysis, international data on R&D personnel is analysed in the following sections. Presented statistics cover 10-year period from 2004 to 2014. Shares and the change of shares of female personnel is compared, both in time and in-between the countries. The list of countries results mainly from the availability of selected statistics. In case of gaps<sup>4</sup>, when possible, the nearest data from the following years were used for 2004, and proceeding years for 2014. This way the 10-yers changes may be

<sup>4</sup> There are many reasons for the gaps, Some countries provide data on biannual manner, some others were not always able to provide all the detailed breakdowns.

either exact numbers (most of them) or might be at most slightly underestimated (clear trends were usually observed).

First three figures (1.3-1.5) present statistics on total R&D personnel (researchers, technicians and equivalent staff, other supporting staff), for 2004, 2014 and the observed differences. Interestingly, as it is clearly observable, all the leading countries with regard to the female shares are central European countries: Latvia, Lithuania, Bulgaria, Macedonia, Estonia, Hungary, Croatia, Romania, Portugal, Slovakia, Poland. The last on the list of 2004 is South Korea. In 2014 Japan was below South Korea (it was not reported for 2004), and even though both countries slightly improved, still stayed at the end of the ranking.

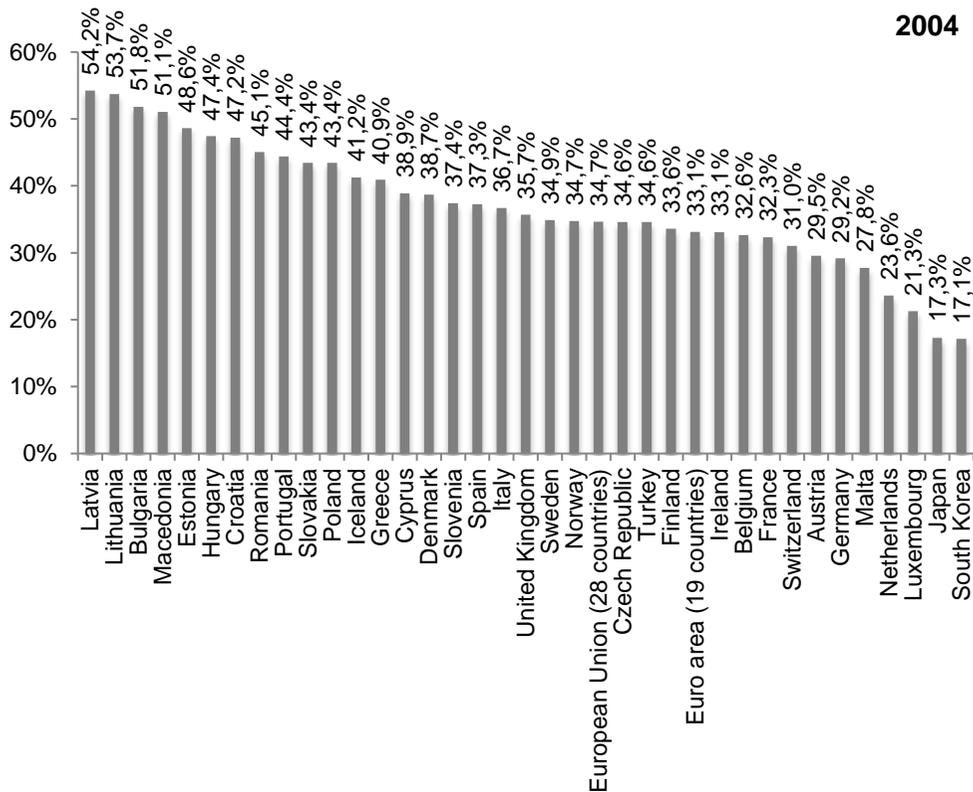


Figure 1.3. Share of females in R&D personnel in selected countries in 2004.

Source: Eurostat.

The changes in reported statistics on sufficiently long 10-year period, allow observation of trends and catching up processes taking place in many countries that try to promote engagement of female in research and scientific activities. Figure 1.5 presents described differences for total R&D employment. Iceland, South Korea indeed and Greece had the largest jumps. There are however countries in which the share of female workers decreased, with the biggest drops noted in Poland, Latvia and Hungary. These countries were originally among the leaders

in terms of 2004 situation. This must be taken into account, as well as additional analysis including the split to personnel subcategories.

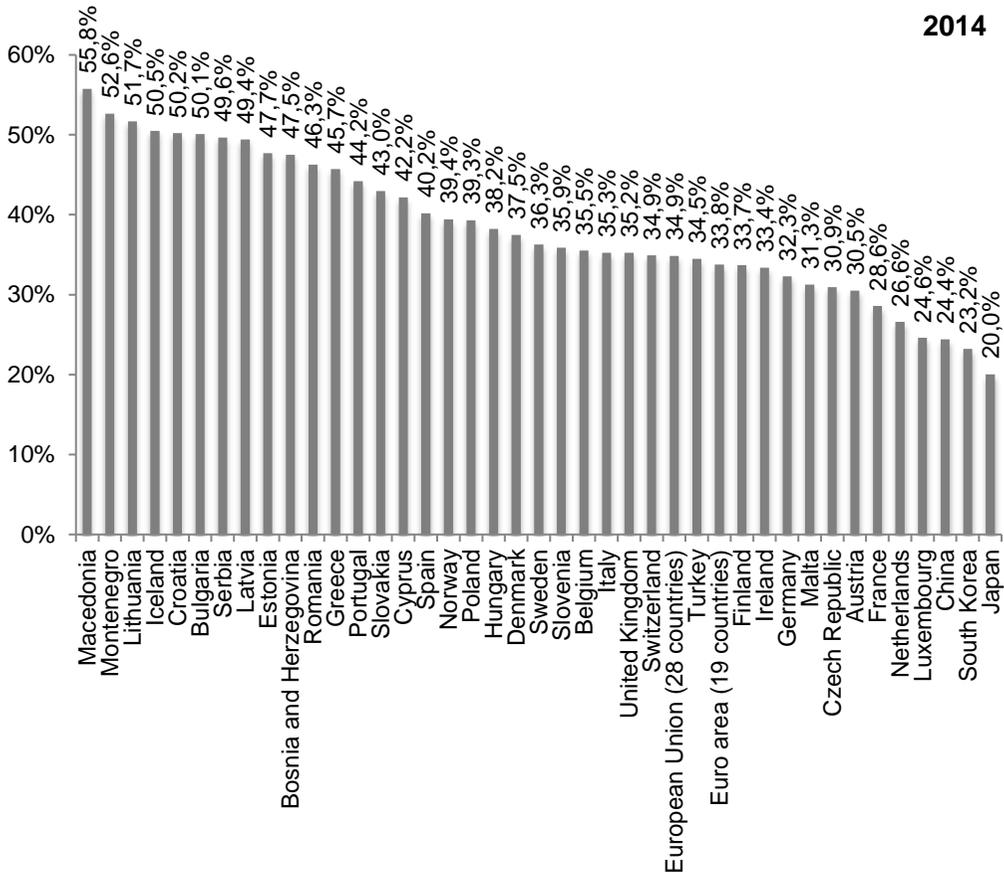


Figure 1.4. Share of females in R&D personnel in selected countries in 2014.

Source: Eurostat.

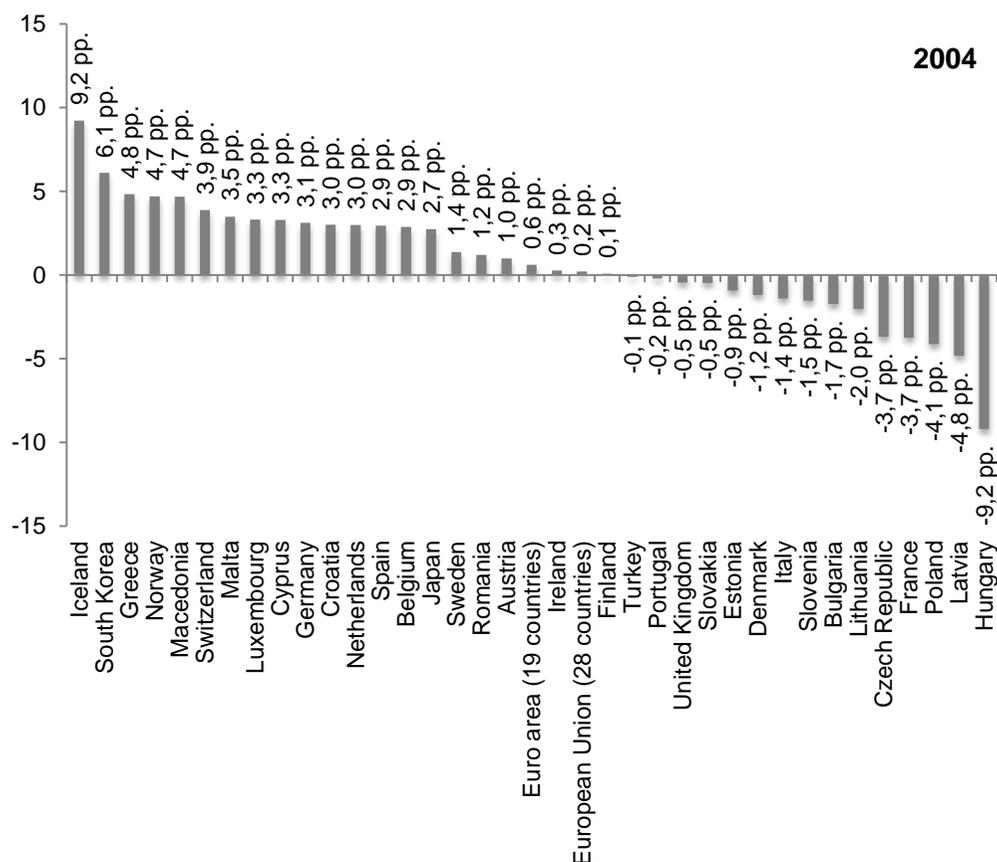


Figure 1.5. Change of share of females in R&D personnel in selected countries in 2004-2014.

Source: Eurostat.

Figures 1.6-1.8 present just one, but the most crucial category of R&D personnel, i.e. researchers. As in the previous case, central European countries are the leaders, and the female shares are roughly of the same magnitude, at least among the leaders. This cannot be said about the lagging countries, as the shares of female researchers in South Korea and Japan are significantly smaller than for total personnel.

2004

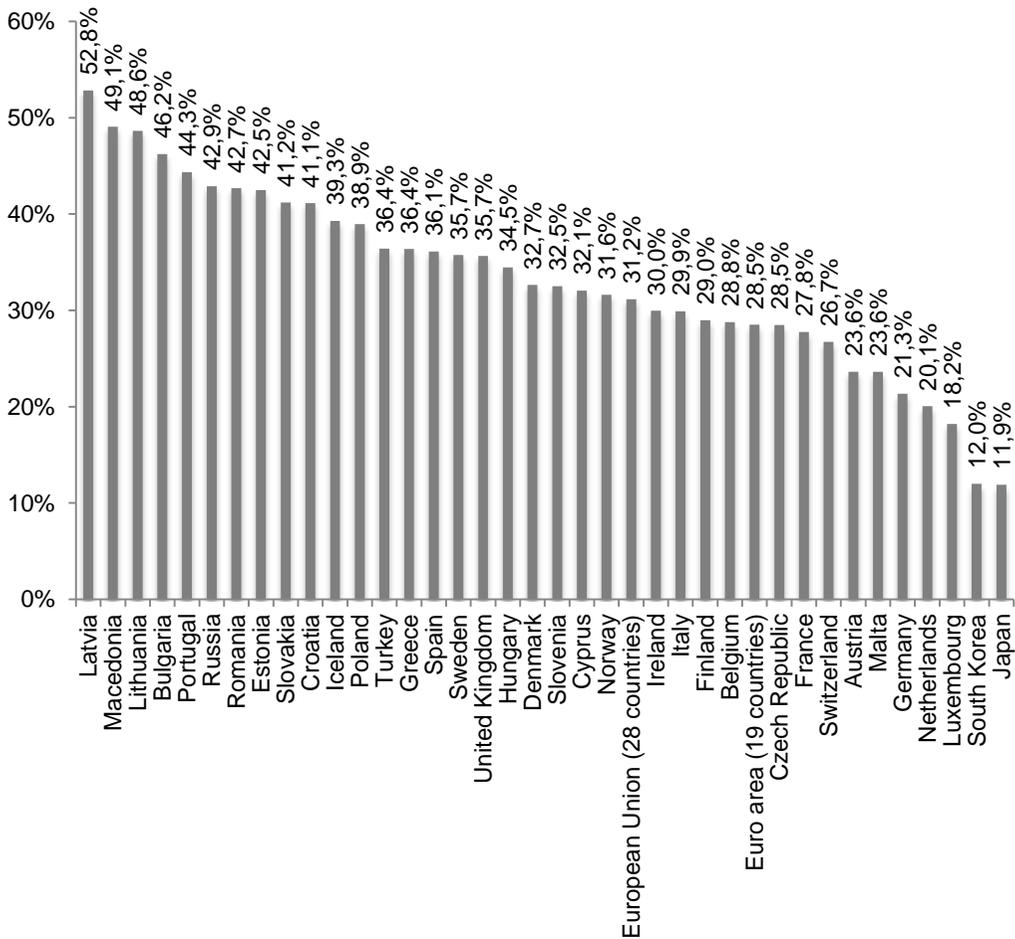


Figure 1.6. Share of females in researchers in selected countries in 2004.

Source: Eurostat.

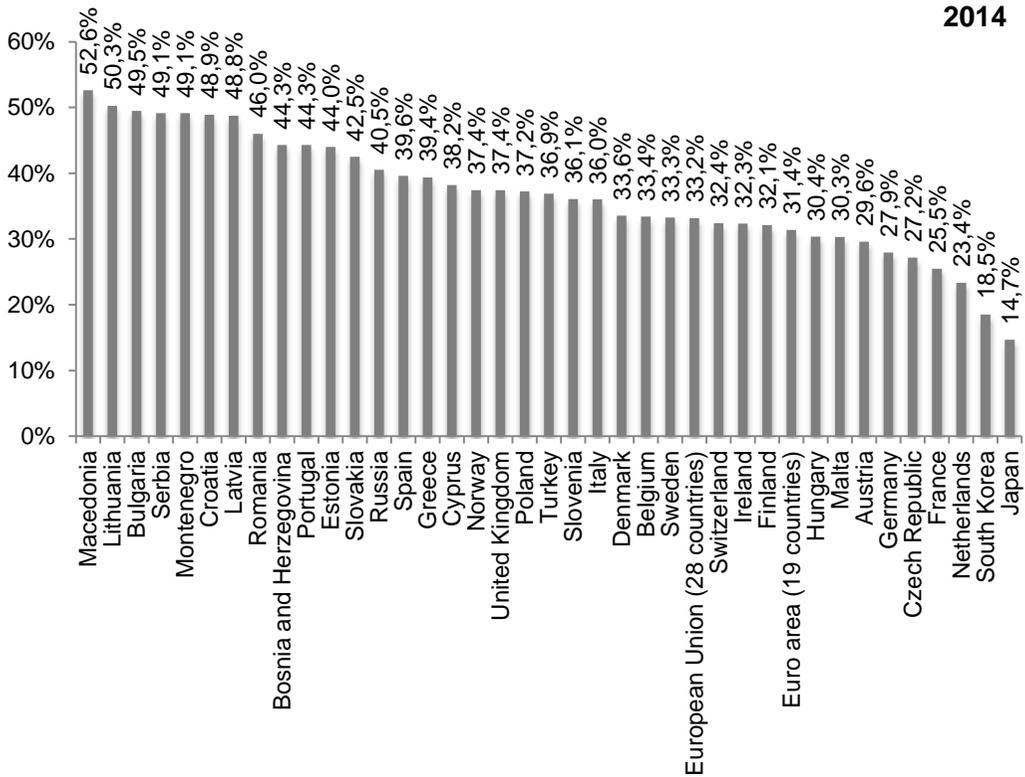


Figure 1.7. Share of females in researchers in selected countries in 2014.

Source: Eurostat.

Quick look at the observed changes over time (figure 1.8) reveals considerably shorter list of countries with decreasing female shares, when compared with statistics for total R&D personnel. This suggests that technicians and other supporting staff are more affected with negative trends.

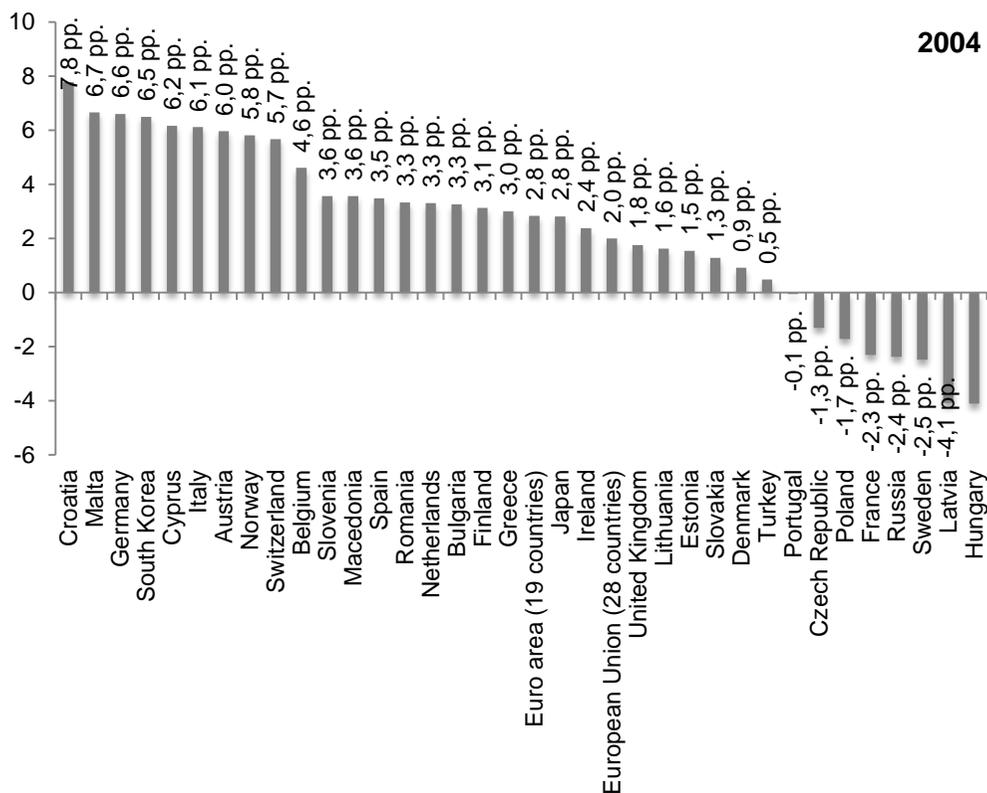


Figure 1.8. Change of share of females in researchers in selected countries in 2004-2014.

Source: Eurostat.

More detailed statistics are presented in the tables. Data in table 1.1 present shares of females in the three main R&D personnel categories. Table 1.2. presents shares of just researchers across sectors. In short, government sectors include all units financed mainly by government, higher education sector covers all higher education institutions, and business sector includes all units sponsored mainly by businesses<sup>5</sup>.

<sup>5</sup> For detailed definitions, check Frascati Manual.

Table 1.1 Share of females in R&D personnel categories.

Category of R&D personnel	Total		Researchers		Technicians		Other supporting staff	
	2004	2014	2004	2014	2004	2014	2004	2014
Belgium	32,6%	35,5%	28,8%	33,4%	33,1%	36,6%	53,3%	56,9%
Bulgaria	51,8%	50,1%	46,2%	49,5%	59,2%	58,6%	65,2%	61,0%
Czech Republic	34,6%	30,9%	28,5%	27,2%	39,8%	31,0%	49,7%	46,0%
Denmark	38,7%	37,5%	29,7%	34,5%	51,1%	38,9%	56,7%	46,0%
Germany	29,2%	32,3%	21,3%	27,9%	33,8%	29,7%	47,2%	54,0%
Estonia	48,6%	47,7%	42,5%	44,0%	60,8%	50,2%	68,8%	73,0%
Ireland	33,1%	33,4%	30,0%	32,3%	24,5%	21,7%	50,5%	46,1%
Greece	40,9%	45,7%	36,4%	39,4%	42,2%	51,6%	51,2%	54,5%
Spain	37,3%	40,2%	36,1%	39,6%	33,5%	37,8%	46,1%	47,3%
France	32,3%	28,6%	27,8%	25,5%		33,2%		37,0%
Croatia	47,2%	50,2%	41,1%	48,9%	48,5%	46,6%	74,1%	67,0%
Italy	36,7%	35,3%	29,9%	36,0%				
Cyprus	38,9%	42,2%	32,1%	38,2%	37,4%	51,2%	60,1%	54,9%
Latvia	54,2%	49,4%	52,8%	52,0%	56,3%	45,8%	58,1%	68,0%
Lithuania	53,7%	51,7%	48,6%	50,3%	64,0%	53,7%	67,4%	69,4%
Luxembourg	21,3%	24,6%	18,2%	27,3%	16,7%	17,6%	41,0%	29,5%
Hungary	47,4%	38,2%	34,5%	30,4%	66,6%	54,1%	69,2%	56,9%
Malta	27,8%	31,3%	23,6%	30,3%	9,5%	12,6%	58,9%	54,2%
Netherlands	23,6%	26,6%	21,0%	23,4%	15,3%		40,8%	
Austria	29,5%	30,5%	23,6%	29,6%	29,1%	26,5%	56,3%	47,9%
Poland	43,4%	39,3%	38,9%	37,2%	50,0%	37,5%	65,2%	58,8%
Portugal	44,4%	44,2%	44,3%	44,3%	39,6%	44,1%	52,6%	42,5%
Romania	45,1%	46,3%	42,7%	46,0%	57,6%	47,2%	44,1%	46,5%
Slovenia	37,4%	35,9%	32,5%	36,1%	40,0%	33,0%	56,5%	44,5%
Slovakia	43,4%	43,0%	41,2%	42,5%	53,4%	40,2%	47,8%	59,3%
Finland	33,6%	33,7%	29,0%	32,1%				
Sweden	34,9%	36,3%	35,7%	33,3%		27,8%		51,4%
United Kingdom	35,7%	35,2%	35,7%	37,4%	33,0%	24,9%	40,8%	35,6%
Iceland	41,2%	42,9%	39,3%	43,8%	45,9%	28,1%	44,1%	94,1%
Norway	34,7%	39,4%	31,6%	37,4%				
Switzerland	31,0%	34,9%	26,7%	32,4%	18,2%	21,1%	52,0%	49,0%
Turkey	34,6%	34,5%	36,4%	36,9%	18,4%	18,0%	21,9%	25,9%
Japan	17,3%	20,0%	11,9%	14,7%	29,2%	36,3%	36,7%	40,1%
South Korea	17,1%	23,2%	12,0%	18,5%	24,6%	32,5%	36,7%	42,1%

Source: Eurostat

Table 1.2 Share of females in researchers in Frascati sectors.

Country\Year	Business		Government		Higher education		Private non-profit	
	2004	2014	2004	2014	2004	2014	2004	2014
Belgium	19,8%	24,9%	31,1%	36,5%	35,4%	41,0%	42,0%	44,3%
Bulgaria	45,1%	39,6%	50,8%	58,4%	38,1%	48,7%	34,2%	44,1%
Czech Republic	19,2%	14,9%	35,1%	37,6%	32,4%	34,9%	22,6%	43,1%
Denmark	24,9%	26,6%	35,5%	48,4%	33,5%	42,3%	28,8%	60,9%
Germany	11,6%	14,1%	28,3%	34,9%	26,1%	38,2%		
Estonia	23,9%	29,9%	58,3%	60,4%	44,9%	47,3%	53,7%	55,0%
Ireland	20,6%	22,6%	31,0%	38,4%	37,3%	45,0%		
Greece	28,0%	26,5%	40,8%	49,9%	38,0%	38,9%	53,2%	49,7%
Spain	26,5%	30,6%	45,5%	48,5%	37,5%	41,7%	55,1%	51,7%
France	20,6%	19,9%	32,7%	35,7%	33,9%	33,2%	41,2%	40,0%
Croatia	38,9%	42,2%	42,0%	52,4%	40,9%	48,8%		
Italy	19,5%	22,3%	40,4%	46,9%	31,3%	40,3%	47,5%	50,6%
Cyprus	22,6%	32,6%	41,5%	56,3%	32,9%	37,9%	29,6%	31,2%
Latvia	50,5%	41,7%	53,2%	56,7%	53,1%	53,0%		
Lithuania	33,3%	32,2%	51,0%	52,7%	49,1%	55,4%		
Luxembourg	14,3%	10,5%	30,6%	39,1%	26,3%	38,3%		
Hungary	23,8%	17,7%	38,6%	43,0%	36,3%	39,0%		
Malta	19,5%	23,0%	50,0%	28,0%	24,1%	34,4%		
Netherlands	10,0%	15,1%	29,2%	37,4%	32,4%	41,8%		
Austria	12,6%	17,6%	36,2%	45,7%	32,8%	39,7%	46,3%	42,9%
Poland	25,1%	19,5%	41,1%	41,9%	40,5%	43,3%	47,5%	48,2%
Portugal	28,1%	32,0%	57,2%	58,6%	46,4%	48,1%	42,0%	52,3%
Romania	41,5%	40,1%	49,1%	48,7%	39,6%	47,2%	60,5%	40,0%
Slovenia	24,9%	26,0%	41,1%	50,1%	34,1%	42,6%	15,6%	7,7%
Slovakia	32,3%	18,5%	42,6%	48,7%	42,6%	45,7%	18,9%	41,8%
Finland	17,0%	16,6%	40,2%	43,9%	42,9%	47,6%	52,6%	58,0%
Sweden	25,2%	23,1%	37,1%	34,5%	48,3%	44,4%		47,3%
United Kingdom	19,1%	20,3%	32,9%	35,7%	41,9%	44,1%		44,5%
Iceland	32,2%	36,8%	43,5%	36,3%	43,5%	51,1%	48,9%	47,4%
Norway	19,4%	23,5%	37,4%	45,8%	39,4%	47,3%		
Switzerland	21,1%	23,3%	25,5%	34,8%	29,6%	36,3%		
Turkey	24,9%	23,7%	28,6%	30,4%	38,2%	42,3%		
Japan	6,4%	8,1%	12,2%	16,9%	21,1%	25,9%	10,2%	13,8%
South Korea	9,6%	14,2%	11,6%	25,0%	17,3%	29,4%	12,2%	27,0%

Source: Eurostat

In all for sectors the female shares of researchers increased (however, in case of non profit, the lists of countries with available statistics were considerably different). Generally, the shares for government and higher education sector were similar: averages for all presented countries, accordingly increased from 34% to 42% for government sector, and from 33% to 41% for higher education. However, the statistics for to remaining sectors were considerably smaller in value, though still showed a positive trend (from 22% to 26% for business sector and from 21% to 29% for private non-profit institutions).

#### **1.4. Summary**

Studies on the research staff covering the topic of gender is of crucial importance for policy building process, helping decision-makers to assess the effectiveness of policy tools. Assessments of the situation, defining the challenges and proposing solutions are all necessary. Women are often excelling in higher education, and yet, represent share of researchers. Practical steps to eliminate any remaining bias which prevent or hinder women from entering, or fulfilling their potential in research careers need to be taken. Working towards gender equality is an essential part of European research and innovation policy.

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## **CHAPTER 2**

### ***THE POSITION OF WOMEN IN THE REAL ESTATE SECTOR IN VIETNAM ON THE EXAMPLE OF REAL ESTATE AGENCY***

#### **2.1. Introduction**

The pursuit of gender equality and hence strengthening the role of women in the society is of a primary importance for the developmental processes of Asian countries such as Vietnam. Improvement of women status among developing countries from education, to life quality, to access to labor market constitute an essential element of developmental processes, which is reflected, among others, in the World Bank Report of 2001 (*A World Bank Policy Research Report*, pp 3–4). Researches authenticate that the presence of women on the labor market is strictly correlated with the level of their education.

However, it is not applicable to every knowledge domain, while the highest percentage of women on the labor market is constantly seen in the sectors related with educational services and health care. Particularly, the said allegiance also refers to professional background of entities providing real estate market services in a broad sense.

Adoption of system solutions in Vietnam real estate market following the European or American real estate market model has been carried out not recognizing the country's cultural diversity. In the developing countries, and as far as the early stage of real estate market development is concerned, men and women participate in the discussed processes to a different extent. Women predominate in real estate agent profession in the developed countries (Foryś, 2015) which is not alike regarding the developing countries.

Study of women's position within the real estate management sector (real estate agency) in Vietnam was carried out in the aspect of Vietnamese women's activity on the labor market, educational disparities and views of prospective market participants behind real estate agency services supply – students of Real Estate at National Economic University (NEU) in Hanoi.

## **2.2. Education and women's occupational activity in Vietnam**

Although Vietnam implements a policy of gender disproportion reduction both in the education level, as well as within the labor market (New Law on Gender..., 2016) the disproportion is still significant (Women in Viet Nam, 2002). Disparity rooted in the history of the country (Ta, 1981, pp. 97–145) is also noticeable in the under-represented market position, access to undertakings financing (loans), real estate purchase or else access to responsible positions (The Global Gender Gap Report, 2013, pp.12–13.). Disproportion appears both in the spatial analysis, as well as in consideration of individual social structures. Especially, gender inequality in the access to technical education, regardless the level and university education is emphasized (Kelly, 2000, pp. 5–6). The latter is well connected to the huge disproportion in the household income, and hence in the prospect for children's education in the poorer families.

Considering the multidisciplinary nature of the services, equality of women's educational opportunities on the secondary and tertiary level's. The requirement of having knowledge on law, economics, agriculture, and also competencies within many soft domains constitutes a barrier to access the profession for people of low education level. Additionally, certification bodies' requirements for real estate agents and real estate appraisers in Vietnam in the scope of educational background and additional practical skills provide that only persons of minimum secondary education may officially pursue the above-mentioned professions (Nguyen, 2010), (Foryś, Nguyen, 2016). The disproportion on the labor market especially in the professions requiring high competencies is a result of a gender educational disproportion.

Women in Vietnam still represent a significant part of uneducated population. Among women above 15 y/o (the minimum age limit recognized in Asia as working age population) nearly 17% are persons uneducated (as of 2010), whereas in the group of those above 25 y/o more than 10%. The highest percentage of uneducated women is within the age group of 15-19 y/o in which nearly 58% of women are uneducated. These are female adolescents born in the years 1990-1995, i.e. in the period of Vietnam entering the market economy, which is specific considering the socialistic countries. This percentage in the subsequent age groups is much lower and equals respectively: 13% in the group of 20-29 y/o, nearly 7% in the group of 30-39 y/o, 6% in the group of 40-49 y/o and 15 in the 50+ group.

The overall percentage of educated Vietnamese women, on secondary and tertiary level, remains very low – elementary education is predominant. Only 3.83% of women above 25 y/o had a full secondary education in 2010. The increasing tendency of this phenomenon is admittedly of exponential nature, but annual growths

are on the level of 0.5% beginning from 1970. The highest percentage of women regarding the full secondary education was observed in the age group of 25-29 y/o (6,7%).

The participation of women in the graduates of secondary and tertiary educational institutions in the years 1997-2014 systematically increases. In 1998 women university graduates constituted 46.5% of the overall graduates number, and even 52.8% in 2014 (figure 2.1). In case of women secondary school graduates the tendency is not so explicit. Below figure shows two trends: the years 1997-2004 and 2005-2014, and the participation of women is much lower compared to men (not exceeding 50%).

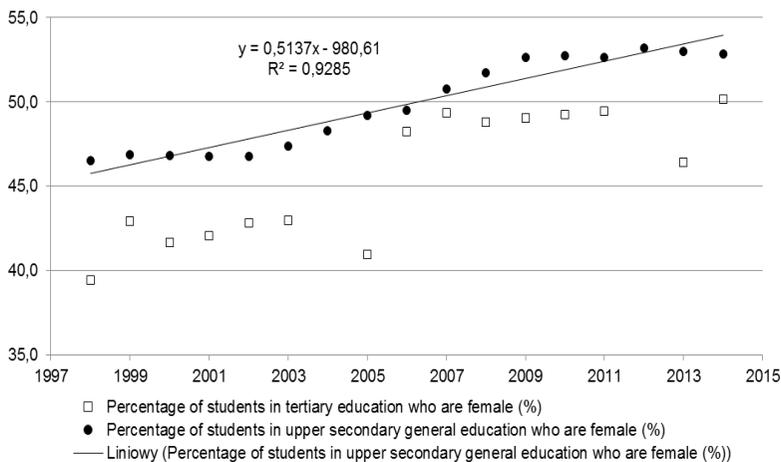


Figure 2.1. The dynamics of participation of women in the number of graduates of secondary and tertiary educational institutions in Vietnam  
Source: own elaboration based on the World Bank data [http://databank.worldbank.org/data/home.aspx]

In the developing countries usually the highest gender disproportion relates to technical faculties on an academic level (*Human Development Report 2009*, p. 79.). Among women in Vietnam education in social sciences, business and law is predominant (35% of

women in 2013), whereas the least common in humanities and art (4,2% in 2013).

The highest dynamics of woman participation in particular scientific disciplines may be seen in the group of future engineers, entrepreneurs and in construction industry (table 2.1). In the years 1999-2013 the participation of students implementing program in those domains increased from 4,3% to 17,7%. The downward trend of women's interest in teaching is visible especially in 2011, however it is a second-place choice of the majority of female students right after economical and legal faculties.

Table 2.1 Percentage of female students in tertiary education enrolled in programs, female (%)

Description	Years									
	1999	2000	2002	2003	2007	2008	2009	2010	2011	2013
Agriculture	2.8	2.7	4.7	4.7	5.3	5.7	6.8	7.0	7.0	5.7
Education	33.9	28.3	29.8	29.8	31.3	28.5	27.5	26.8	22.9	28.0
Engineering, Manufacturing and Construction	4.3	5.1	6.7	6.6	11.1	10.6	11.1	11.6	14.6	17.7
Health and Welfare	2.3	2.6	3.3	3.3	2.7	3.7	4.2	4.7	4.5	5.2
Humanities and Arts	4.7	4.7	6.2	5.4	5.2	5.6	5.4	5.2	5.1	4.2
Social Sciences, Business and Law	44.9	49.7	43.8	44.1	40.7	40.8	40.5	40.4	41.3	35.0
Others	7.1	6.9	5.5	6.1	3.6	5.1	4.5	4.2	4.5	4.3

Source: own elaboration based on the World Bank data

[<http://databank.worldbank.org/data/home.aspx>]

Regarding the real estate agent profession technical and economical education, as well as communication and social skills are important. Therefrom, the majority of female graduates obtaining secondary education acquire appropriate basic knowledge and important skills regarding this profession.

The discussed occupational activity area of real estate agency in the developed countries is frequently correlated with starting the business activity which is an additional barrier for women in developing countries. The experience, e.g. of European countries indicate that conducting women’s own business activity on the real estate market is a perfect form allowing the maintenance of a balance between the household duties and the occupational activity due to the flexible working hours. Such an approach is not popular in the countries in which tradition of women staying home and taking care of children and elderly dependents is deep-rooted (Thi, 2008, pp. 97–145).

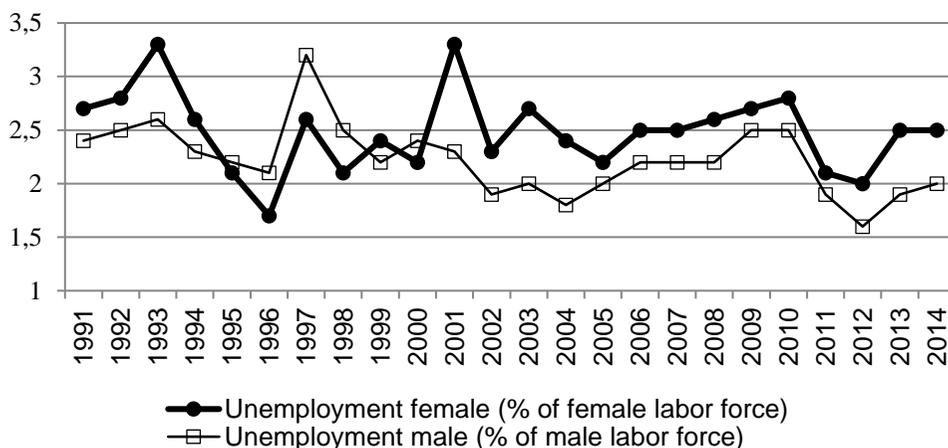


Figure 2.2 The dynamics of participation of persons staying unemployed within working age population in Vietnam by gender

Source: own elaboration based on the World Bank data.

The unemployment rate in Vietnam is not high. 2.5% of women in working age in 2014 were out of work (in the age between 15-60 y/o), for men the percentage was 2% (in the age between 15-65 y/o). In the years 1991–2014 at time of so-called entering the market economy, the highest indication of unemployed women was recorded in 2001 (3.3%) and in 1993 (3.3%). However, the percentage of unemployed women is generally higher than of men, with exception of the years 1995-1998 and the year 2000 (figure 2.2). It should be also noted that retiring population is basically left destitute and become dependents. This causes that professionally active persons are also among those Vietnamese people of both genders who are retired. In 2014 more than 73% of women were still professionally active, in the age of 15, whereas 65% in 2007. Among men this percentage is much higher and equals respectively 82% in 2014 and 75% in 2007.

### **2.3. Survey method**

Opinion survey of the selected group was carried out by using a multiple choice questionnaire. This makes the best, yet not the cheapest method for recognition of respondents' opinion and preferences. Due to the cultural differences and respondents' aversion to open-ended questions a substantive survey and multiple choice questions were utilized.

Based on the noticed regularities as far as woman education in Vietnam and cultural differences of Asian countries and observation of Vietnamese real estate market are concerned, the professional position of women on this market is puzzling. Now that, from one perspective there is no data regarding the female employment in the professions related to real estate brokerage, from the other the market observations indicate a significant participation of men (among others as owners of real estate agencies), the survey aimed at discovering the motives

which motivated women choosing studies in the real estate faculty allowing the obtainment of professional license of real estate agent and real estate appraiser. Real estate appraiser in Vietnam is generally a bank or governmental clerk, hence the survey was focused on real estate agent profession. 123 from among 370 students of real estate faculty (4-year studies) which comprises 33% of the overall number of students were surveyed. The questionnaire was filled in only by students that between 27-28 November 2016 attended lectures.

The questionnaire included respondent's particulars (six questions) including: place of birth (city, village), age (years), place of secondary education completion (city, village), command of foreign languages (none, one, more than one), year of study (1-4) and gender (woman, man). Significant part of the questionnaire consisted of 25 questions directly connected with the research problem. Groups of questions concerned the following issues:

- criteria in respect of choosing the indicated field of study,
- knowledge of agent job realities
- opinion on women's suitability for practicing a profession of an agent,
- uprooting of traditional way of perceiving women in the society.

Initially, only women were intended to fill in the questionnaire, but how women are perceived on the real estate market, especially in the context of rooted family traditions, is interesting also from the position of men. The 69 women and 54 women participated in the survey which constituted respectively 56.1% and 43.9% of the surveyed sample. The 62 of those surveyed were born in city (50.4%), other persons in village (49.6%), yet the majority graduated from a school in city. Most of the students declared command of one foreign language (59.3%), two foreign languages were declared only by 14.6% and none by 26% of the respondents.

The majority of respondents, which is 63.4%, are people aged 18-19, and the youngest, i.e. 18 y/o constituted 46.3% of the overall respondents number (Figure 2.3).

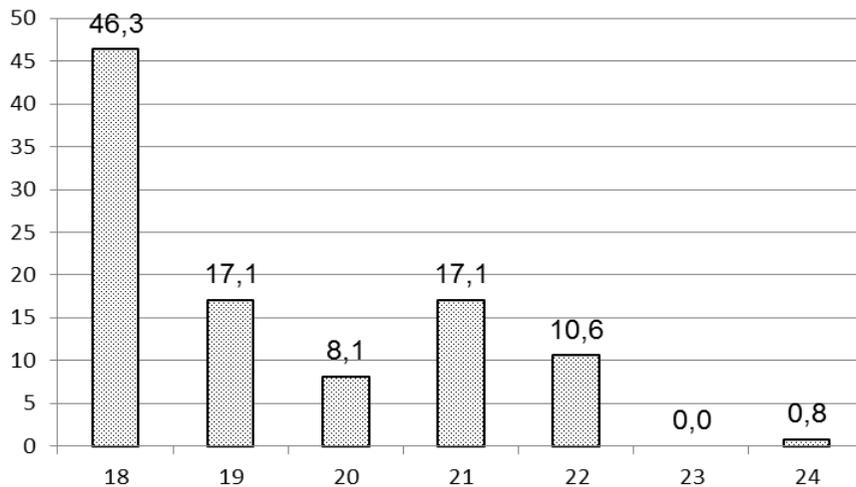


Figure 2.3 Age distribution of surveyed students

Source: own elaboration.

Due to the representativity of the sample, the group of first-year students is acceptable, because as much as 74% of the students participated in the survey. As for the other years, the survey attended respectively 20% of the second-year students, 11.1% of the third-year students and 22.5% of the fourth-year students. Taking confidence coefficient  $\alpha=0,95$  and maximum error at the level of 5% the sample size should have equaled 188, whereas in total 76 observations at the error level of 10%. Taking confidence coefficient  $\alpha=0,90$  and maximum error at the level of 5% the sample size should have equaled 156, whereas in total 57 observations at the error level of 10%, at the fraction size of 0,5. Whereas, sample for the first-year students meets the requirements of statistical observation number provided the confidence coefficient is at  $\alpha=0,95$  and the maximum error at 5% (Aczel 2000, p.247).

## **2.4. Survey results for assessing women as prospective real estate agents**

The core question to be answered in the below analysis was the convergence of assessment of woman as a real estate agent for both genders. In this regard, questions selected from the questionnaire were analyzed:

Question 9: Do you think that the real estate agent profession is a good profession for a woman? (Yes, No)

Question 10: Do you think that women are better real estate agents than men? (Yes, No)

Question 11: Do you think that woman as a real estate agent inspire more trust than man while purchasing an apartment? (Yes, No)

Question 15: Do you think that real estate agent job is difficult? (Yes, No)

In step one the sample was divided into four groups, whereas grouping variable was gender (F-female, M –male) and response to the question 9 (N- No Y –Yes). As a result four subgroups of symbols FN (19.5% of respondents), FY (36.6% of respondents), MN (18.7% of respondents), MY (25.2% of respondents) were obtained. The next step comprised of building cross tabulations which allowed the determination of the numerosness by the responses to three subsequent questions 10, 11 and 15. Utilizing the adopted symbols, e.g. NNN means negative response subsequently to each question 10,11 and 15 (table 2.2).

Table 2.2 Structure of responses to the questions 9, 10, 11, 12 broke down by gender

Sex	NNN	NNY	NYN	NYN	YNN	YNY	YYN	YYY	Sum
FN	3	20		1					24
FY		3	2	13	2	5	1	19	45
MN	4	8		5	1	4	1		23
MY	5	13	1	5	2	3	1	1	31
Sum	12	44	3	24	5	12	3	20	123

Source: own elaboration.

Responses of women were more clear-cut than those of men. From the surveyed sample 24 women recognized that agent profession is not a good profession for woman. Whereas 3 of them assessed that women are not better agents than men, do not inspire more trust and the position of real estate agent is difficult. 45 women recognized real estate agent position as good. This group presents more diversified opinions, but the most of women (19) responded positively to three other questions. On the other hand, 13 female respondents from this group stated that women are not better agents than men, although they inspire more trust on the market. This group states that real estate agent job is difficult for women.

Opinions also vary among men. The majority of them (31 respondents) claim that the profession of real estate agent is good for Vietnamese women, whereas 23 persons are of a different view. In the group of men with a positive attitude towards such a role of women on the real estate market the most of negative responses relate to the assessment whether woman is better agent than man, according to them does not inspire more trust than men and in their opinion this profession is difficult for women. Other opinions among this group of men are fragmented. Similarly, a significant divergence of opinions is

seen among men who consider women should not exercise the profession of agent. Here, in the first place the view that they are better agents than men is dominant, the trust they inspire is not greater and this job is difficult for them.

Summing up this part of the survey, it can be noted that notwithstanding the gender the highest rate of respondents claim that the profession of real estate agent is not a good choice for woman, because they are not better agents than men (83 responses). But simultaneously 50 respondents claim that there is no lower trust for women agents than for men on the market. Particularly worrying is the fact that as much as 81% of respondents recognized that the profession of agent is very difficult for a woman.

In the next stage, leaving the question 9 and grouping by genders, the following questions were analyzed:

Question 21: Do you think that household duties do not impede the work as an agent for woman? (Yes, No)

Question 22: Do you think that it is possible for a woman to bring up a child and simultaneously work as an agent? (Yes, No)

Question 23: Do you think that woman having graduated from a university should be financially independent? (Yes, No)

At this stage, the correlation between opinion about female agents on the real estate market and generally about their place on the market and the way women are perceived in the Vietnamese society was searched.

Taking the same symbols as in the table 2.2 cross tabulations were built which allowed to determine the numerousness by the answers to three subsequent questions 21, 22 and 23 (table 2.3).

Table 2.3 Structure of responses to the questions 9, 21, 22, 23 broke down by gender

Sex	NNN	NNY	NYN	NYY	YNN	YNY	YYN	YYY	Sum
FN	1	3	1	9		3		7	24
FY		2	1	13		5		24	45
MN	5	1		6	3		2	6	23
MY		3	3	10	1	2	1	11	31
Sum	6	9	5	38	4	10	3	48	123

Source: own elaboration.

Opinions in the analyzed case regarding the possibility for distribution of roles by a woman to household duties and professional work were balanced (there were 47.2% positive and 52.8% negative responds). Among men considering that real estate agent job is not good for women 12 simultaneously claimed that this kind of a job would not impede the reconciliation of household duties, and 11 held the opposite view. Among women recognizing that gender is not predisposed to the agent work 14 indicated that household duties would make a barrier in this profession and 16 said that they would not. The largest group of women (37.8% of the surveyed women) claimed that they would be able to exercise this profession, yet according to them it would interfere the household duties, whereas not the child upbringing. Among men a similar opinion is also predominant beside the view that household duties do not impede exercising of real estate agent work.

Respondents who recognized that the profession of an agent is good for women and simultaneously claimed the necessity for women to become financially independent after studies related to this profession constituted 28.5% of the whole respondents group. In this group women were predominant. The third group of respondents comprises of people who claim that household duties do not constitute

any obstacle for the work of an agent, women should be financially autonomous after studies, whereas this job is impeded by child upbringing. Especially women attribute much greater importance to child upbringing as a barrier for agent job exercising.

In the context of three questions under analysis the weak response concentration of men is noticeable, whereas firm in case of women, especially those strongly crediting that real estate agent work is by all means good for women. The survey is characterized by low negative correlation, of no statistical importance (-0,21) of the women's responses claiming they would have chosen other studies than real estate market and (0,019) between the number of women's responses claiming this profession as good for their gender and the positive decision on choosing another course of study. The obtained results indicate numerous contradictions and vaguely crystallized view on the market relating to women as real estate agents in the Vietnamese market.

## **2.5. Conclusions**

On the basis of the conducted survey it can be noted that still a significant problem is to overcome cultural barriers, rooted in the society and relating to women in a role of advisers or decision makers in the real estate market. The marginalization of women in the decision-making processes results in lower trust as for their competencies on the real estate market.

A substantial difference between the participation of women in the education at tertiary and secondary levels within the professions relating to the future work on the real estate market is visible, especially when it comes to technical occupations or construction industry. It is a process faced also by the world developed economies – feminization of certain professions. It is puzzling that in case of both genders there

is a similar view as for the woman's role in the family. The majority consider that household duties constitute an obstacle for exercising the work of an agent, but are not an obstacle at all regarding child upbringing. It should be noted that in many multigenerational families elderly people take care of the youngest generation on an everyday basis, there are also developed systems of organized child care. Additionally, as much as 85.4% of the respondents believed that women after studies should be financially independent. In other words, from one perspective there is a strong tendency to enhance women's independence and from the other the traditional role in the family is still visible.

Why, then, according to the respondents a woman is not a good agent on the Vietnamese market? The result of the survey is worrying because it was carried out within the group of people preparing for this particular occupation, young people, educated and raised at the time of Vietnam entering the market economy. The survey results prompt some further full-scale analyzes of the reasons for marginalization of women in the professions of the real estate market, and especially to search for reasons for negative opinions among women themselves, as for their competencies in the discussed sector.

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## **CHAPTER 3**

### ***BUSINESS ACTIVITY OF WOMEN IN EUROPEAN UNION AND EAST-CENTRAL EUROPE***

#### **3.1. Introduction**

The topic of women's participation in management in enterprises and of employing them at managerial positions is a widely discussed issue that has been a topic of many studies and analyses for years. At first, these studies were mostly focused on identifying the possible differences between women and men in regards to competencies and leadership styles. These were then followed by an analysis of the personality traits of both genders as well as the success factors that each perceives. Some researchers have also tried to determine which gender produces better financial results and is better at completing tasks. Much attention has been devoted to the discrimination of women and the necessity of treating both genders equally in work-related situations. There are also publications addressing the legal aspects of gender equality.

Despite the existence of numerous publications, there are still areas that demand further studies. Because of processes such as

Globalization and Europeanization, the position of women in the marketplace is also changing. The purpose of this article is to compare the business activity of women from East-Central Europe and the European Union and point out the success factors and personality traits that contribute to the present and future presence of women in business.

In order to realize this purpose, we state three hypotheses:

Hypothesis 1: Women are less-frequently employed as managers than men.

Hypothesis 2: Polish women are more active in business than in the European Union's more-developed countries.

Hypothesis 3: Women from East-Central Europe are more active in business than women from the European Union's more-developed countries.

To verify these hypotheses, we used statistical data published by Eurostat and the "Gender Statistic" created by the World Bank Group.

We adopt the following layout of the article:

in Section 2, a review of international literature concerning the subject is presented; Section 3 is devoted to the presentation of success factors, and Section 4 to the psychological traits of men and women that influence the business activity of the population. Section 5 presents the methodology of the study. Section 6 is empirical and presents statistical data about women's position in business as well as a comparative analysis of the business activity of women from the European Union, East-Central Europe, and two highly-developed economies: Germany and Great Britain. These countries have been chosen as benchmarks due to the fact that they have been listed among the ten-best-developed economies in the world. In the Global Competitiveness Index (GCI), Germany is listed as the top country, and the United Kingdom occupies second place (Doing Business, 2015). Furthermore, the innovation

potential of Germany measured by the Innovation Union Scoreboard published in 2015 was classified in 4th place with a score of 0.676 (in a group called innovation leaders), while the United Kingdom achieved 7th place with a score of 0.636 (<https://badania.parp.gov.pl>). The conclusions are described in the last section.

### **3.2. Review of source literature**

Studies concerning the role of gender in organizations and management had already started in the 1970s, and their number grew rapidly in the late 80s (Marshal, 1984; Walby 1990; Handy 1994; Mills 2002; Hearn 2008). At first, these studies mostly focused on identifying the differences in the competencies and leadership styles of men and women. Later, they addressed each gender's resources, which resulted in a search of the key skills and unique strengths and assets characterizing men and women that could be used in their work as managers.

Most of the research focused on identifying the leadership styles that characterize men and women and on deciding whether a leader's gender provides any advantages or disadvantages for a company.

A study from 2013 by An-Chih Wang, Jack Ting-Ju Chiang, Chou-Yu Tsai, Tzu-Ting Lin, and Bor-Shiuan Cheng posed a hypothesis that, not only do women and men tend to adopt different leadership styles due to their natural psychological differences, but they also inspire different results in their subordinates' performance while using the same leadership style due to their different social roles. Their research took place in China; therefore, they focused on comparing men's and women's results while adopting one of the two most popular leadership styles in China: benevolent and authoritarian. They concluded that a correlation exists between a leader's gender and his/her subordinates' results under the adopted style, and that neither is actually a good

choice for female leaders (since their benevolent style has a weaker positive result, being attributed to their gender rather than good will; if they adopt an authoritarian style, they meet a huge drop in worker performance) (Wang, Chiang, Tsai, Lin, Cheng, 2013, pp. 101-113).

In 2015, Geoffrey Tate and Lin Yang attempted to find out if there is a difference in the corporate culture dependant on the leader's gender. They used a set of data collected during workplace closure to determine the salary gap between men and women moved from an old workplace to a new one. Using this type of evidence made it possible to prove that the said pay gap is not a result of different career choices, as some suggest, since the workers were very similar at the moment of hiring and were hired for similar positions. As a result, the researchers concluded that, even though women were paid less than men at the same position in all cases, the gender of the CEO made a significant difference. In companies lead by a female CEO, the observable pay gap was smaller than in those with a male leader. What is more, if the CEO of the closing plant was also a woman, the involuntary displaced female workers tended to meet fewer obstacles in the new workplace. In the end, Tate and Yang stated that female leaders create a more female-friendly corporate culture than the male ones (Tate, Yang, 2015, pp. 77-97).

Also, some researchers decided to determine whether the leader's gender influences corporate finance and investments. They conducted research in 116 firms with female CEOs and CFOs and then compared it to existing data about men in the same positions, reaching a conclusion that there are features characterizing women that make them less likely to take risks than men; and as a consequence, female leaders make financial and investment decisions that result in a lower likelihood of making acquisitions and issuing debt than those made by men. Female executives are also more likely to keep their positions.

Men, on the other hand, seem to be overconfident in their financial decisions when compared to women (Huang, Kisgen, 2013, pp. 822-839).

Although there is a considerable amount of research about gender in management that took place in American and Asian companies, the data originating from Europe seems to be less common in international publications concerning this important topic. This is why we decided to base our research on statistics from the European Union, Poland, the United Kingdom, Germany, and East-Central Europe.

### **3.3. Success factors of men and women – a general summary of studies**

The differences between male and female managers have been widely discussed. There are authors claiming that we can indeed observe significant differences between genders when it comes to leadership and those arguing that the said differences are nothing more than a result of stereotypes and social roles. Some authors (Vecchio 2003, pp. 835-850, Mahar 1997, p. 209) have not identified significant differences in the success factors of men and women. Others, on the contrary (Ogger 1994, p. 258, Eagly and Carli 2003, pp. 807-834, Shahtalebi, Yarmohammadian and Ajami 2011, pp. 3644-3647), identified such differences and claimed that there are different success factors between men and women in managerial positions. These differences are mostly connected to sensitivity, integration, cooperation, and communication. Women, according to Ogger (1994, p. 258) and Strykowska (1995, p. 49), attribute higher value to these factors.

In 2011, S. Shahtalebi, M. H. Yarmohammadian, and S. Ajami conducted qualitative research in which they questioned a group of women from Iran (the Isfahan province) who had experience in

management positions in higher education. They attempted to find out which values and skills these women presented that differentiated them from men, stating that women possess “soft skills” and value; among others, good atmosphere in the workplace (in this case, university), being sociable, flexible, and having an aim (Shahtalebi, Yarmohammadian and Ajami, 2011, pp. 3644-3647).

In turn, A. H. Eagly and L. L. Carli published a study in 2003 based on a meta-analysis of 161 documents related to the leadership style presented by men and women and 87 documents related to the effectiveness of men and women as leaders. They concluded that the different approaches to leadership and different abilities presented by women in management caused them to possess both advantages and disadvantages as leaders, depending on the situation. They stated that women have a more future-oriented, democratic, and participative leadership style compared to men, and they tend to have better developed social skills (Eagly, Carli, 2003, pp. 807-834).

In 2006, E. Dobrosiewicz also researched success factors in management, surveying 1005 female managers by asking them about success factors as they perceive them. The results were as follows: high education (56%), ambition (51%), intelligence and hardworking (48%), resourcefulness (37%), and persistence (27%).

Other success factors were also identified (Powell, 2003, Lisowska, Bliss, Polutnik, Lavelle; Bliss, Polutnik, Lisowska, 2003). These result in a conclusion that women more often than men are oriented towards personal growth and interesting challenges, while men focus on the work environment and prestige, possibility to influence key decisions, and pursuit of high salaries.

According to Teresa Kupczyk (2009, p. 58), women viewed the following factors as those that would allow them to succeed: knowledge, education, ability, psychological traits, openly approaching clients, hard

working, and leadership style. On the other hand, men pointed out the following success factors: effectiveness, motivation, stating clear goals with precise deadlines, and identifying oneself with the company. T. Kupczyk showed evidence that women are more likely than men to bring once-started tasks to a close and that they are more involved, cooperate better, and are more communicative and persistent. Men, however, are more decisive.

### **3.4. Women's personality trait analysis**

Literature concerning psychology indicates the importance of personality traits of the manager for the functioning and development of a company. It is important, however, to realize that the so-called "base personality type" only determines the potential attitude a person would show while interacting with others (Nosal, 1997). International studies suggest that personalities can be described using five factors: neuroticism, extraversion, conscientiousness, openness to experience, and agreeableness (Nosal, 1997). This is the Big Five model (or five-factor model) that allows us to explore the connections between personality traits and effectiveness. In 2001, B. Dudek and A. Wichrowski (2001) proved that the Big Five personality traits have a practical application and claimed that women are more concerned about their identity and relationships with others while men perceive success, aggression, domination, position, and rivalry as important elements of their work as managers. Men are more focused on maximizing profits, whereas women are slightly less motivated by money (Szymborski, 2005, pp. 78-80).

According to H. Fisher (2003, pp. 50-51), women possess the ability to think holistically, which means they are able to see a bigger picture than men, ponder a wider variety of aspects, and can propose a bigger number of possible solutions. This is the reason why H. Fisher

called the way women think 'non-linear.' This is a trait of great importance in a rapidly changing turbulent market. It also allows women to gather, process, and absorb a lot of data, which is significant in today's world. What is more, the author points out that women frequently use intuition while making decisions and are efficient in ambiguous and difficult situations, such as a crisis.

Then, E. Parsole and M. Wray (2002, pp. 78-79) argued that female managers have an advantage due to their interpersonal skills, as these allow them to encourage their workers to get more involved in the company issues; and because this trait makes them willing to share their knowledge and delegate tasks, a resulting friendly and creative work environment is built. Thus, women practice mentoring, which has the following traits: mutual trust, assistance in developing worker skills, emphasizing listening, and asking questions. This is the opposite of instructing and constricting, setting formal goals and positions, as well as an informal exchange of information.

The personality traits of managers influence many aspects of their work; e.g., the leadership style they choose. Even though such traits describe an individual person rather than genders (and, in most cases, generalizing that the whole population of each men and women present a specific set of traits is a mistake), there are nonetheless some connections between gender and personality.

Women's attitude towards communication differentiates them from men. They more often address their subordinates as equal partners in communication (Lisowska, 2009), focusing on listening to the other side and reaching a compromise. Men, on the other hand, are based on hierarchy while communicating, use arguments linked to their position, and not infrequently ignore possibilities to develop better relationships by listening.

Another trait that characterizes women is their ease of establishing and keeping relationships (Ben-Yoseph, Gundry, 1998, p. 59). Relationships are an important element of making business for women, both those with insiders (like co-workers) and outsiders (like a company's partners and clients).

The traits mentioned above are gaining more and more significance in today's business, while technical skills were more-highly valued in the past. These so-called soft skills, natural to women and not so natural to men, are becoming more important every year (Shahtalebi, Yarmohammadian, and Ajami, 2011, pp. 3644-3647).

This is connected to another crucial trait of women. They usually have a higher emotional intelligence level than men (Lisowska, 2009, pp. 114-116), which means that:

- they are more empathetic,
- they identify and name their feelings more easily,
- they deal with stress better,
- they are more focused,
- they resolve conflicts better.

In addition, high emotional intelligence allows women to use their intuition in work-related situations, which (like many other soft skills) is getting more appreciated. This is a new situation, as opposed to the times when hard skills were given the highest importance and a manager claiming to use intuition while making crucial decisions would likely be ridiculed (Majewska-Opiełka, 1998, p. 67). Women's intuition is also a result of their previously mentioned non-linear thinking, as they are able to see more connections between situations occurring in a company and take them all into account while deciding on the best solutions. Meanwhile, men tend to think linearly, dividing problems into many aspects, and addressing only one of them at a time (Fisher, 2003, pp. 21-23).

Observing the leadership style focused on partnership that women present, A. Wiśniewska-Szałek reached the conclusion that this cannot be learned, as it is a result of natural personality traits. In the current situation that requires people to spend more time in the workplace (making it a more-significant part of their lives), a friendly atmosphere in the office is one of the key motivators for workers. Also, A. Wiśniewska-Szałek (2007, p. 208) underlines that women can adapt to changes in their environment more easily than men and can also foresee them earlier than men.

Changes on the modern market (such as globalization and informatization) force managers to take into account more factors than ever before while making decisions. This market situation should give women an advantage, as operating in such an environment is their strength. Such a hypothesis was proven in research by (Moir, Jessel, 1998, p. 240), who point out that treating other people as an important factor while making business decisions is both a strength and weakness of women. They underline that women are more sensitive to issues concerning morality and people's well-being and more easily relate these issues to the process of decision making, which makes the process far more difficult for them than it is for men (who more often base their decisions on evaluations, rules, and deduction). The authors argue that women hear, see, and feel more, and this in turn allows them to make better decisions in the current market situation.

To summarize, we can state that women on average present better-developed soft skills and are able to use them more naturally. Though once underestimated, these skills are becoming more significant on the market nowadays according to the statement that some of the most important assets in a company are the people who work there, their skills, and their ability to create knowledge as an organization.

What is more, we should state that the current market favors female managers whose natural personality traits match the requirements of modern markets and clients. This is why we can suppose that, in the future, the number of female managers will grow.

### **3.5. Methodology**

To conduct an empirical analysis and verify our hypotheses, we used data extracted from two databases. The first is the “Gender Statistic” created by the World Bank Group, which is an institution focused on the world’s development and reducing poverty (but which also publishes annual reports using statistical data gathered from all around the world based on research made in each country by its own statistical offices). This specific database contains key data on gender and gender equality topics like demographics, education, health, labor force, and political participation. It is possible to extract data on both social and economic issues from there. The data is collected annually and aggregated by a weighted average.

The second of the mentioned databases is Eurostat. Eurostat is the statistical office of the European Union that provides statistical data mostly from Europe. Data is gathered from all of the countries that are members of the EU (and, in some cases, from other European countries). The European Statistical System has been established to ensure that the data presented by Eurostat is reliable and comparable. In order for the data to be comparable, surveys in each country have to be coordinated; ESS is a partnership between Eurostat and the national statistical institutions that allows the office to collect data on annual, quarterly, or monthly bases from all of the member countries

### **3.6. Women's position in business – empirical study**

The distinct majority of women (Figure 3.1) and men (Figure 3.2) are employed in services, as is a common trait of developed countries. Though, comparing the data from Poland with the European Union's average and the data concerning the two best-developed European economies (the United Kingdom's and Germany's), we observe that Polish women are far less active in services than women from other countries of the EU. The percentage of Polish women employed in services remains at a level near to that observed in East-Central Europe.

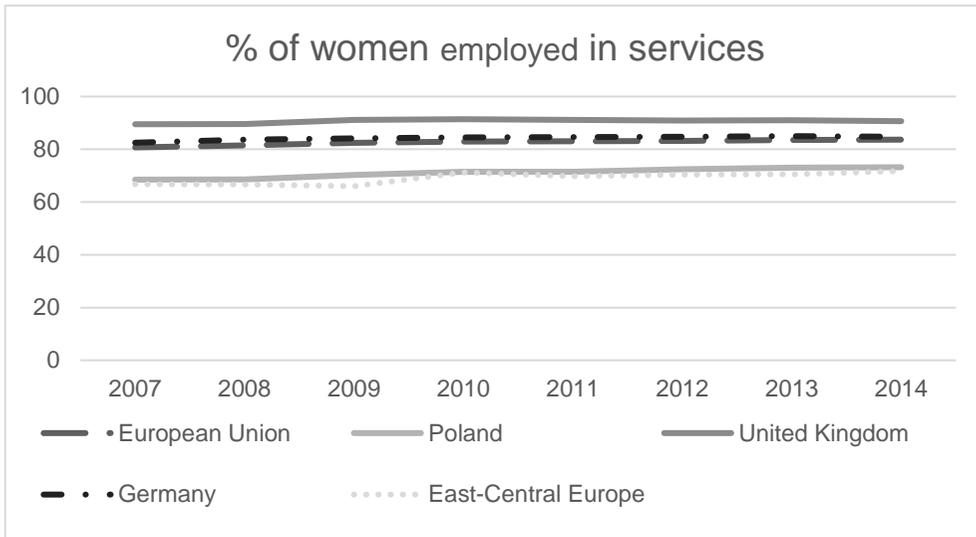


Figure 3.1 Women employed in services [in %].

Source: own elaboration based on World DataBank 2016

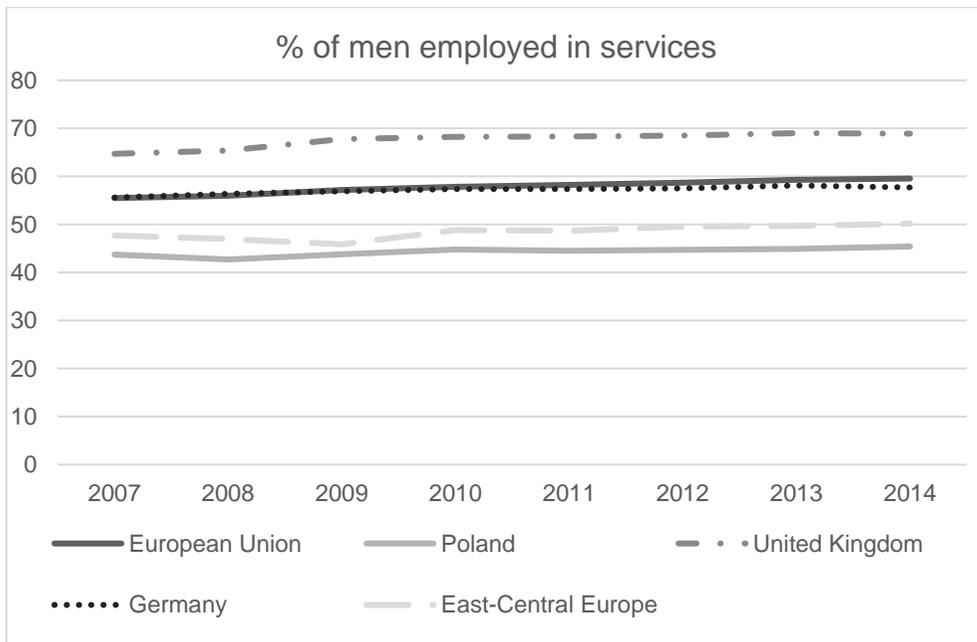


Figure 3.2 Men employed in services [in %].

Source: own elaboration based on World DataBank 2016

Tab. 3.1. Women and Men employed in services [in %] – comparison during 2007-2014

Employment in services - men and women [in %]		European Union	Poland	United Kingdom	Germany	East-Central Europe
<b>2007</b>	Men	55.5	43.7	64.7	55.6	47.7
	Women	80.7	68.5	89.5	82.5	66.8
<b>2008</b>	Men	55.9	42.7	65.4	56.4	47.0
	Women	81.4	68.6	89.6	84.2	66.6
<b>2009</b>	Men	57.1	43.8	67.8	56.9	45.9
	Women	82.5	70.3	91.1	84.2	66.0
<b>2010</b>	Men	57.8	44.8	68.2	57.4	48.8
	Women	82.9	71.5	91.4	84.5	71.2
<b>2011</b>	Men	58.2	44.5	68.3	57.4	48.7
	Women	83.1	71.5	91.2	84.6	69.7
<b>2012</b>	Men	58.7	44.7	68.5	57.5	49.5
	Women	83.2	72.4	90.9	84.7	70.4
<b>2013</b>	Men	59.3	44.9	69.0	58.1	49.7
	Women	83.6	73.1	91.0	85.0	70.5
<b>2014</b>	Men	59.6	45.4	68.9	57.7	50.2
	Women	83.7	73.2	90.6	84.8	71.7

Source: own elaboration based on World DataBank 2016

The data presented in figures 3.1 and 3.2 as well as the aggregated data presented in table 3.1 show that women are more often employed in services than men. In this case, a huge difference of approximately 30 percentage points can also be observed between the number of men and women employed in services in Poland (around 45% of men and nearly 75% of women in 2014), which is greater than in the United Kingdom, where this difference in the observed period is equal to around 20 percentage points (for example, 70% of men and 90% of women in 2014). The average for the European Union shows that the

difference between male and female employment in services is equal to around 25 percentage points, and this trend did not change in the observed period (figure 3.1 and figure 3.2). Furthermore, more men (figure. 3.4) than women (figure. 3.3) are employed in industry, both in the European Union and in East-Central Europe<sup>6</sup>. The difference in the activity of men in industry in the countries taken into consideration in this study are not as noticeable as in the group of women. In East-Central Europe, the number of women working in industry is by far higher than in the European Union. The fewest women are employed in industry in the United Kingdom (approximately 5 percentage points less than the EU average), while in Germany, the situation is quite the opposite – the number of women engaged in industry is around 2-3 percentage points higher than in the European Union on average.

In Poland, women's employment in industry is lower by around 5 percentage points than in East-Central Europe and higher by around 5-7 percentage points than in the European Union (table 3.2).

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<sup>6</sup> East-Central Europe countries: Bulgaria, Czech Republic, Hungary, Romania, Slovakia, Slovenia, Montenegro, Serbia

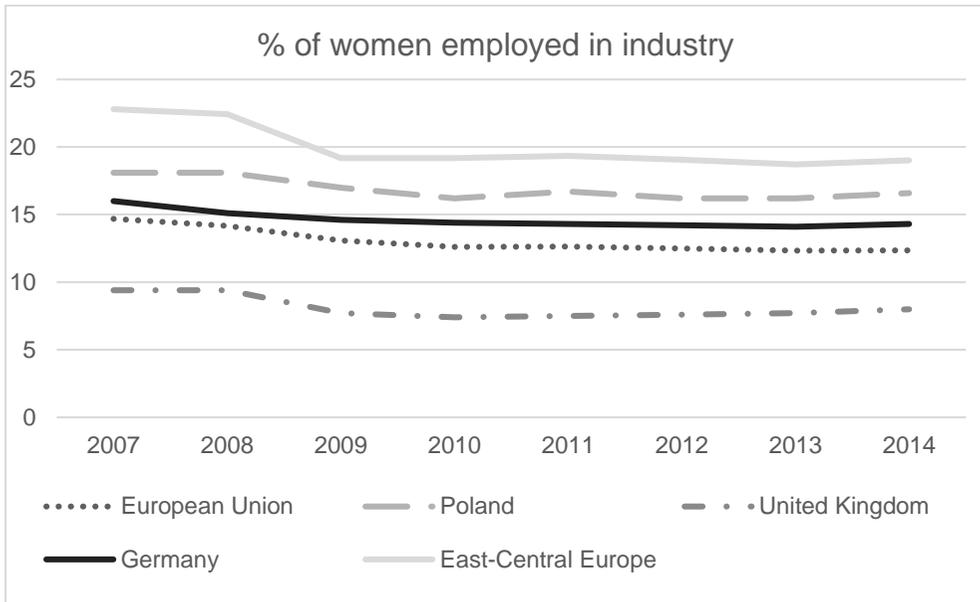


Figure 3.3 Women employed in industry [in %].

Source: own elaboration based on World DataBank 2016

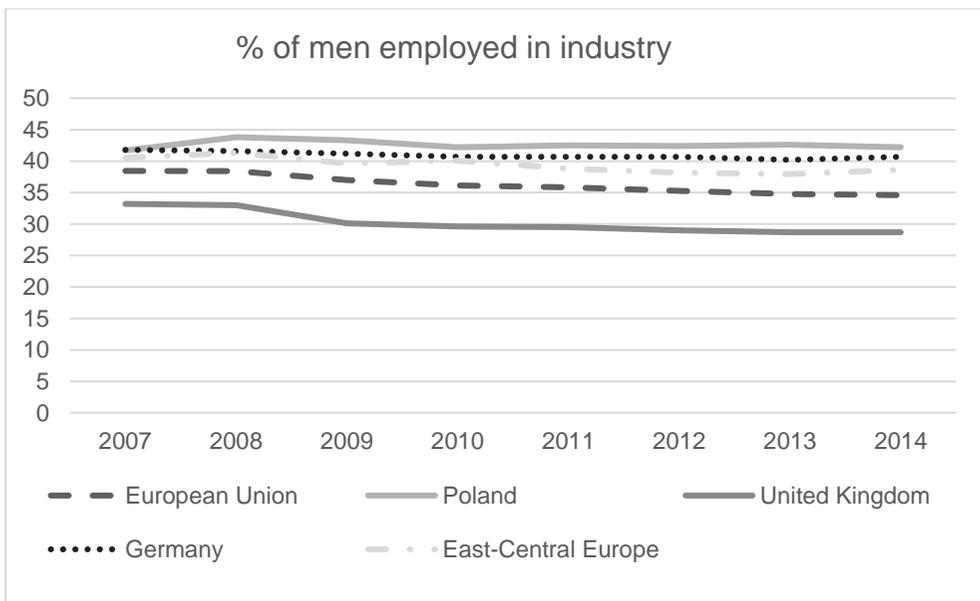


Figure 3.4 Men employed in industry [in %].

Source: own elaboration based on World DataBank 2016

Table 3.2 Women and Men employed in industry [in %] – comparison during 2007-2014

Employment in industry - men and women [in %]		European Union	Poland	United Kingdom	Germany	East-Central Europe
<b>2007</b>	Men	38.4	41.7	33.2	41.8	40.5
	Women	14.7	18.1	9.4	16.0	22.8
<b>2008</b>	Men	38.4	43.8	33.0	41.6	41.3
	Women	14.2	18.1	9.4	15.1	22.4
<b>2009</b>	Men	37.0	43.3	30.1	41.2	39.6
	Women	13.1	17.0	7.7	14.6	19.2
<b>2010</b>	Men	36.1	42.2	29.6	40.7	40.1
	Women	12.6	16.2	7.4	14.4	19.2
<b>2011</b>	Men	35.8	42.5	29.5	40.7	38.8
	Women	12.6	16.7	7.5	14.3	19.3
<b>2012</b>	Men	35.3	42.4	29.0	40.7	38.1
	Women	12.5	16.2	7.6	14.2	19.1
<b>2013</b>	Men	34.8	42.6	28.7	40.2	37.9
	Women	12.3	16.2	7.7	14.1	18.7
<b>2014</b>	Men	34.6	42.2	28.7	40.7	38.6
	Women	12.4	16.6	8.0	14.3	19.0

Source: own elaboration based on World DataBank 2016

Analyzing the data presented in figure 3.5 and table 3.3 we observe that women in East-Central Europe are more-frequently self-employed (running their own businesses) than women in the European Union. Up until 2013, this difference amounted to approximately 14 percentage points. In 2013 there was a turning point in this trend, and a huge drop (of around 6 percentage points) in the number of self-

employed women can be noticed. Despite this change in the East-Central European market, the drop in Poland is by far lower. The number of self-employed women dropped between 2013 and 2014 by approximately 4 percentage points. One more relationship is visible here; well-developed economies like Germany and the United Kingdom are characterized by a lower percentage of self-employed women. In the United Kingdom, the trend is opposite to that in East-Central Europe – between 2013 and 2014, the number of self-employed women increased. In Germany during the analyzed period, the percentage of self-employed women stayed at nearly the same level; this situation is similar for the average number of self-employed women in the EU.

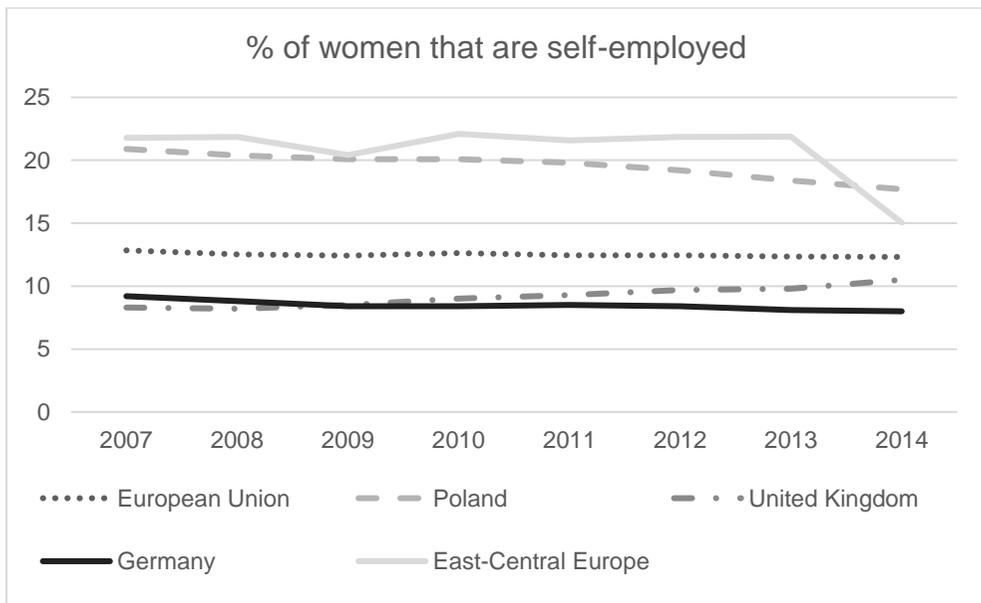


Figure 3.5. Self-employed women [in %]. Source: own elaboration based on World DataBank 2016

In Poland and East-Central Europe, the percentage of self-employed men is similar to that of women. Meanwhile, in Germany and the United Kingdom, men are more often self-employed (by a few

percentage points during the whole analyzed period). This also applies to the whole European Union (figure 3.6).

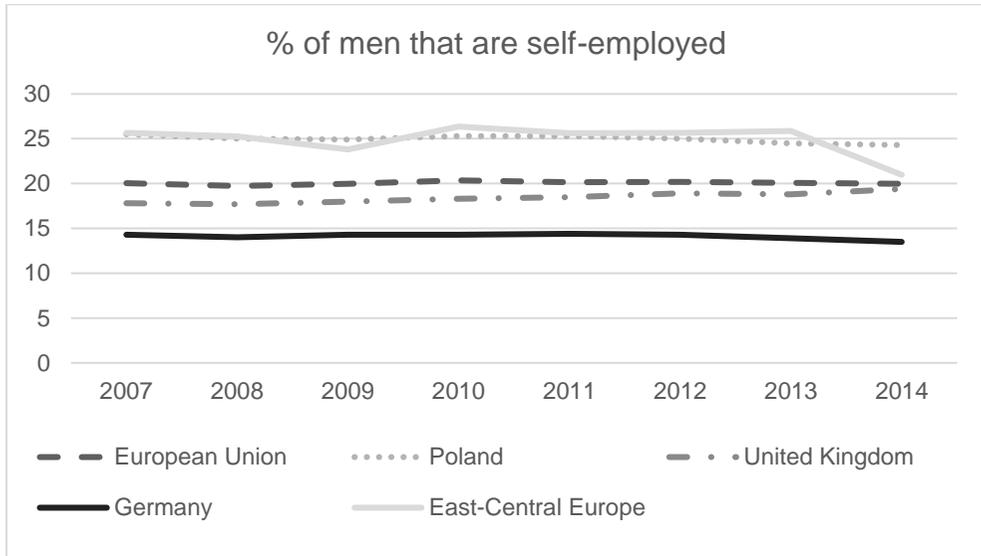


Figure 3.6 Self-employed men [in %].

Source: own elaboration based on World DataBank 2016

Table 3.3 Self-employed women and men [in %] – comparison during 2007-2014

Self-employment - men and women [in %]		European Union	Poland	United Kingdom	Germany	East-Central Europe
<b>2007</b>	Men	20.1	25.5	17.8	14.3	25.6
	Women	12.8	20.9	8.3	9.2	21.8
<b>2008</b>	Men	19.7	25.0	17.7	14.0	25.3
	Women	12.5	20.4	8.2	8.8	21.9
<b>2009</b>	Men	20.0	24.9	18.0	14.3	23.8
	Women	12.4	20.1	8.5	8.4	20.4
<b>2010</b>	Men	20.4	25.3	18.3	14.3	26.4
	Women	12.6	20.1	9.0	8.4	22.1

<b>2011</b>	Men	20.1	25.3	18.5	14.4	25.6
	Women	12.4	19.8	9.3	8.5	21.6
<b>2012</b>	Men	20.2	25.0	18.9	14.3	25.7
	Women	12.4	19.2	9.7	8.4	21.9
<b>2013</b>	Men	20.1	24.5	18.8	13.9	25.9
	Women	12.3	18.4	9.8	8.1	21.9
<b>2014</b>	Men	20.0	24.3	19.4	13.5	21.0
	Women	12.3	17.7	10.5	8.0	15.1

Source: own elaboration based on World DataBank 2016

Despite the fact that fewer women are employed in services in Poland than in the other studied countries, the unemployment rate of Polish women is lower than of that of East-Central Europe and similar to the unemployment rate of women from the EU (figure 3.7) (which is a result of the higher business activity of Polish women who, as is shown above in figure 3.5, are creating jobs for themselves).

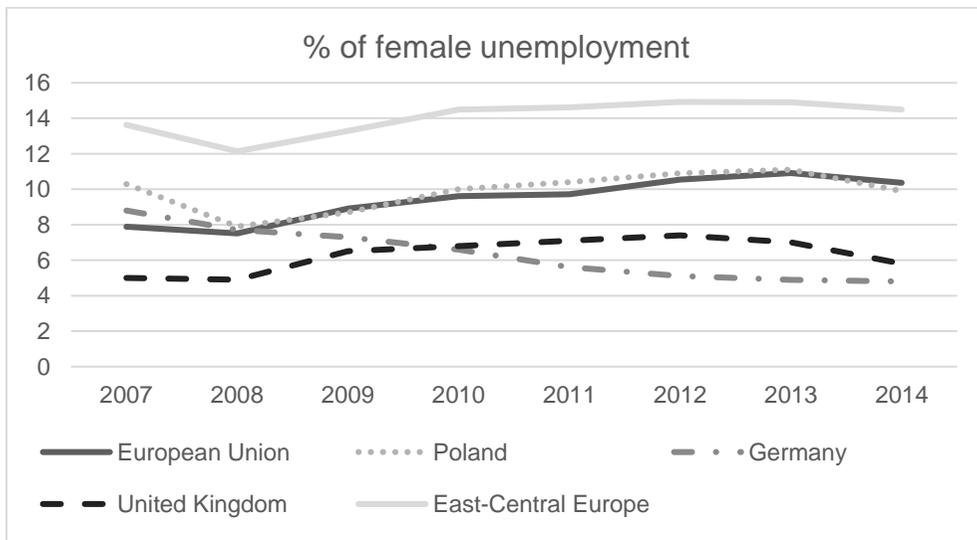


Figure 3.7 Female unemployment [in %].

Source: own elaboration based on World DataBank 2016

The unemployment rate of men in East-Central Europe is higher than in the European Union (figure 3.8), but this rate of both Polish men and women is lower – similar to that observed in the European Union (table 3.5), which can also be attributed to self-employment (table 3.3).

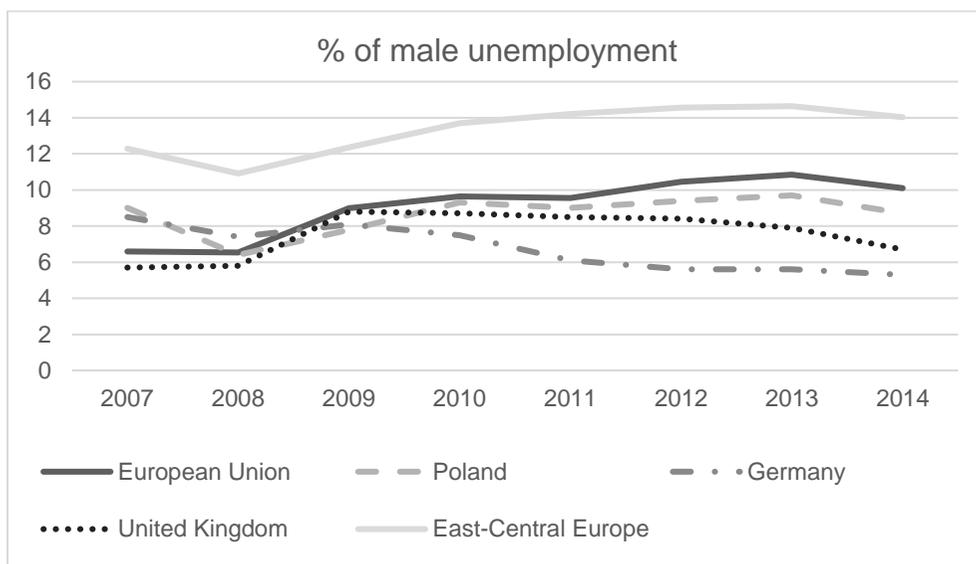


Figure 3.8 Male unemployment [in %].

Source: own elaboration based on World DataBank 2016

Table 3.5 Female and Male unemployment [in %] comparison during 2007-2014

Unemployment- men and women [in %]		European Union	Poland	United Kingdom	Germany	East-Central Europe
<b>2007</b>	Men	6.6	9.0	5.7	8.5	12.3
	Women	7.9	10.3	5.0	8.8	13.6
<b>2008</b>	Men	6.5	6.4	5.8	7.4	10.9
	Women	7.5	7.9	4.9	7.7	12.1
<b>2009</b>	Men	9.0	7.8	8.8	8.1	12.4
	Women	8.9	8.7	6.5	7.3	13.3

<b>2010</b>	Men	9.6	9.3	8.7	7.5	13.7
	Women	9.6	10.0	6.8	6.6	14.5
<b>2011</b>	Men	9.5	9.0	8.5	6.1	14.2
	Women	9.7	10.4	7.1	5.6	14.6
<b>2012</b>	Men	10.4	9.4	8.4	5.6	14.6
	Women	10.5	10.9	7.4	5.1	14.9
<b>2013</b>	Men	10.8	9.7	7.9	5.6	14.6
	Women	10.9	11.1	7.0	4.9	14.9
<b>2014</b>	Men	10.1	8.7	6.7	5.3	14.0
	Women	10.4	9.9	5.8	4.8	14.5

Source: own elaboration based on World DataBank 2016

Women are employing others in their own businesses less frequently than men by half (table. 3.6). Despite this general trend, Polish women are by far more active in this area than women from all of the other countries analyzed in this study (Figure. 3.9). While Polish women appear to be the most-active group of women in terms of employing other people (they do it more frequently than women from both the European Union and East-Central Europe on average), women from the United Kingdom are the least active.

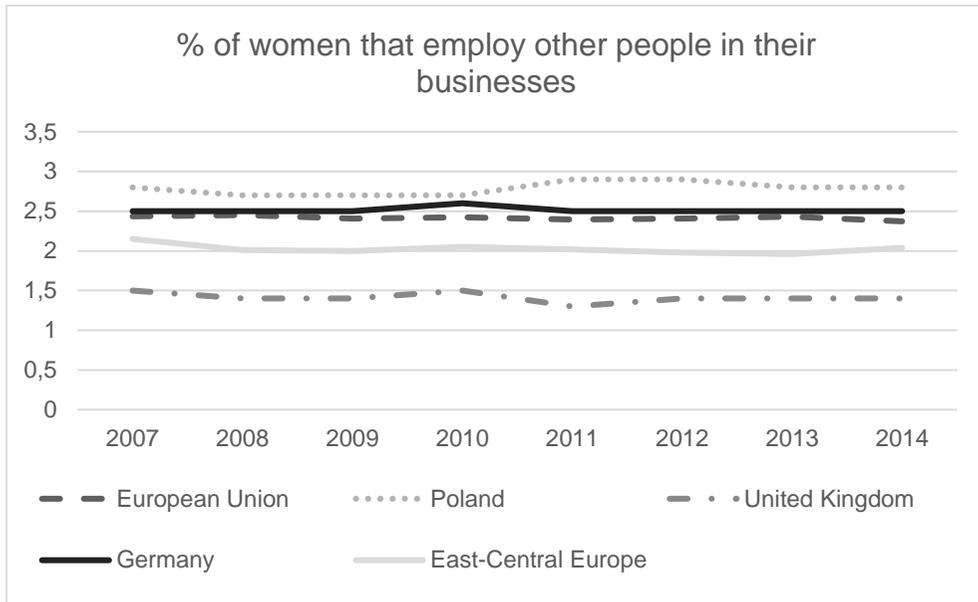


Figure 3.9. Women who employ other people in their businesses [in %].

Source: own elaboration based on World DataBank 2016

The data presented above clearly shows that Polish women present a higher business activity understood as creating jobs for themselves and others, which in turn allows us to verify Hypothesis 2: Polish women are more active in business than in the European Union’s more-developed countries. Comparing the percentage of women and men who are employing people in their businesses, we observe that Polish women do so more frequently than Polish men. This situation is the opposite in both the United Kingdom and Germany, where men are employers more frequently than women (table 3.6).

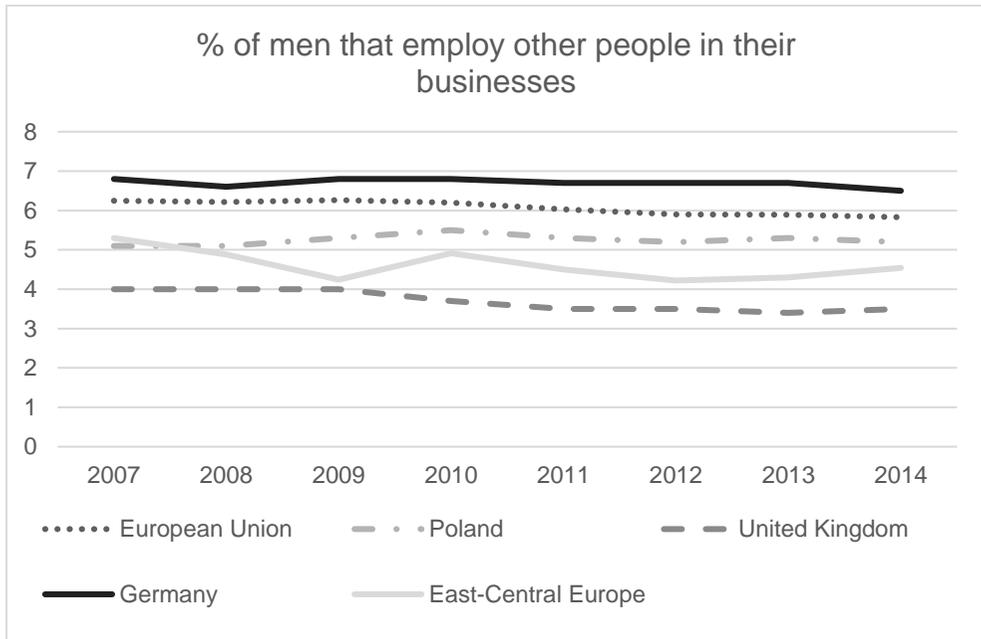


Figure 3.10 Men who employ other people in their businesses [in %].

Source: own elaboration based on World DataBank 2016

Table 3.6. Women and Men who employ other people in their businesses [in %] - comparison during 2007-2014

People employing others in their businesses - men and women [in %]		European Union	Poland	United Kingdom	Germany	East-Central Europe
<b>2007</b>	Men	6.2	5.1	4.0	6.8	5.3
	Women	2.4	2.8	1.5	2.5	2.2
<b>2008</b>	Men	6.2	5.1	4.0	6.6	4.9
	Women	2.5	2.7	1.4	2.5	2.0
<b>2009</b>	Men	6.3	5.3	4.0	6.8	4.2
	Women	2.4	2.7	1.4	2.5	2.0
<b>2010</b>	Men	6.2	5.5	3.7	6.8	4.9
	Women	2.4	2.7	1.5	2.6	2.1

<b>2011</b>	Men	6.0	5.3	3.5	6.7	4.5
	Women	2.4	2.9	1.3	2.5	2.0
<b>2012</b>	Men	5.9	5.2	3.5	6.7	4.2
	Women	2.4	2.9	1.4	2.5	2.0
<b>2013</b>	Men	5.9	5.3	3.4	6.7	4.3
	Women	2.4	2.8	1.4	2.5	2.0
<b>2014</b>	Men	5.8	5.2	3.5	6.5	4.5
	Women	2.4	2.8	1.4	2.5	2.0

Source: own elaboration based on World DataBank 2016

The business activity of East-Central European women is not as high as that of Polish women. It is true that the data presented above shows that women from East-Central Europe create jobs for themselves (are self-employed) more often than women from the European Union; however, when creating jobs for other people by employing them in one's own company is considered, they are less active than women from Poland, Germany, and the whole European Union on average. We cannot, therefore, validate Hypothesis 3 as a whole: Women from East-Central Europe are more active in business than women from the European Union's more-developed countries.

One of the factors that contributes to the higher business activity presented by Polish and East-Central European women can be the longer maternity leave offered to them after giving birth compared to the length of maternity leaves in Germany, the United Kingdom, and (on average) in the European Union (Figure. 3.11).



Figure 3.11. Maternity leave - number of days paid [in days].

Source: own elaboration based on World DataBank 2016

Women occupy managerial posts less-frequently than men, both in the European Union and East-Central Europe. The difference in the number of male and female managers stands out most clearly in Germany, where only a little more than 20% of managers are female and nearly 80% of them are male. The smallest difference is observed in Poland (around 10 percentage points), and the average of East-Central Europe shows that the number of female managers there is lower than the number of male managers by half (figure. 3.12).

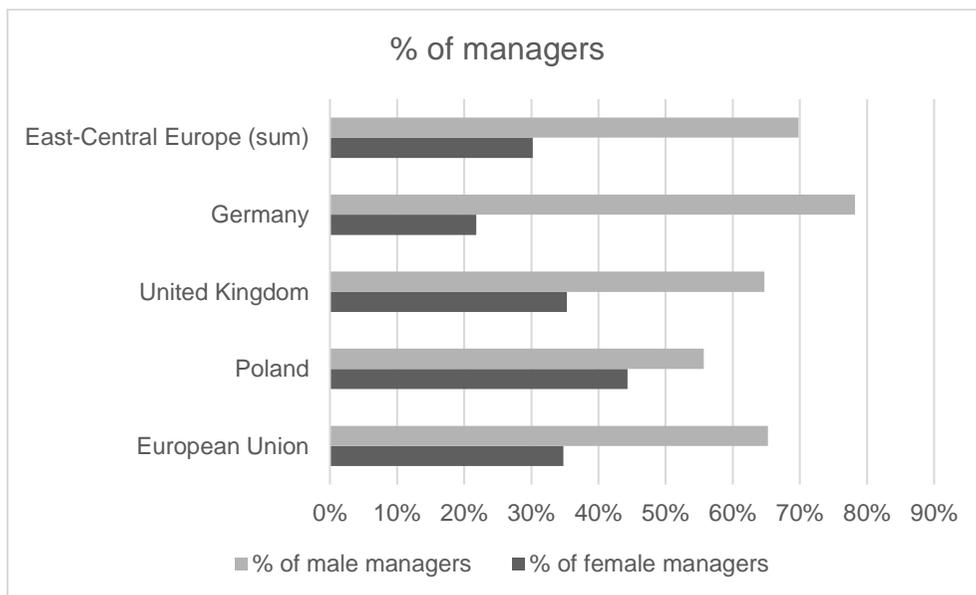


Figure 3.12 Male and female managers [in %].

Source: own elaboration based on Eurostat 2016

The data presented in figure 3.13 once again confirms that not only are Polish women more active in business than the other studied groups of women, but they are also more-frequently employed as managers. Admittedly, Polish female managers are most often employed in micro-enterprises (employing up to nine workers), which can be attributed to the fact that they are more often self-employed than the women in the other analyzed countries. Also attributable is the fact that, in Poland, micro-enterprises make up 70% of the whole small- and medium-sized enterprise sector, and that among them, 91% are self-employed people (raport/; [http://europa.eu/rapid/press-release\\_MEMO](http://europa.eu/rapid/press-release_MEMO)).

This is also a characteristic of the whole of East-Central Europe. Meanwhile, in the European Union, female managers work more frequently in big enterprises (employing more than 1000 people) than in small- and micro-enterprises.

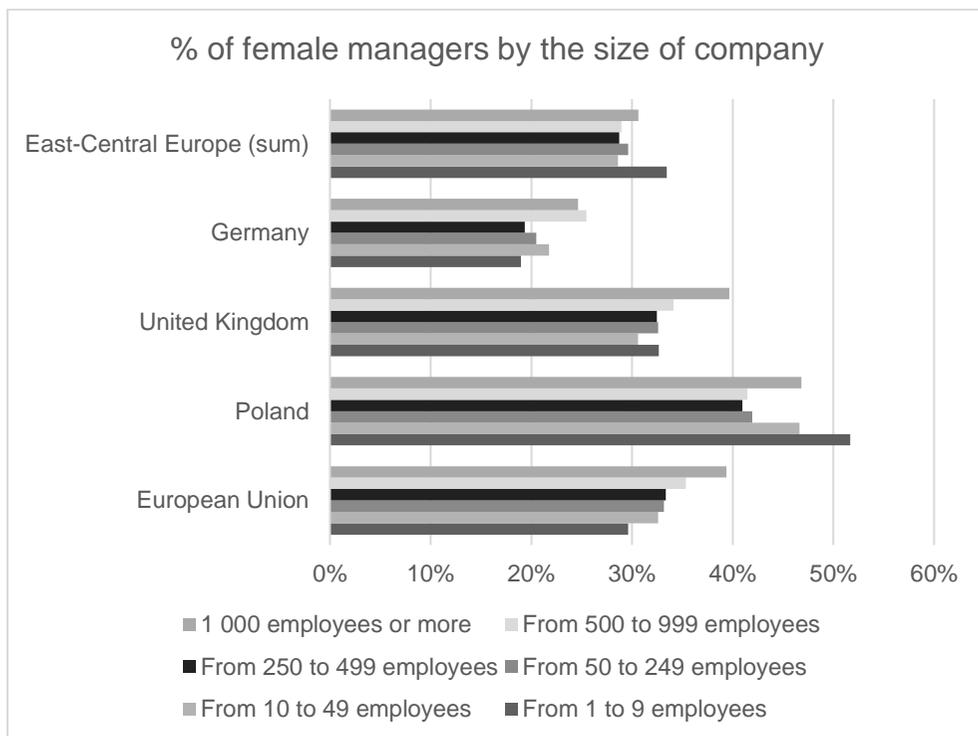


Figure 3.13 Female managers by the size of company [in %]. Source: own elaboration based on World Eurostat 2016

Despite the fact that women in Poland represent higher business activity than women from the European Union and East-Central Europe, there are still observable differences between the number of men and women on managerial positions (figure 3.13), which allows us to verify Hypothesis 1 as true: Women are less-frequently employed as managers than men. According to the analysis of personal traits characterizing men and women that were presented in Section 3, women attribute a high value to knowledge and education as key success factors in business, which can also be confirmed by the data presented below in figure 3.14 Both in East-Central Europe and the European Union, women complete tertiary education more frequently than men, which is a significant factor in today's knowledge-based

economy. Women more frequently than men associate success in business with establishing good relationships and openness with clients, which responds to the needs of the modern market (which emphasizes the personalization of products so they can meet the individual needs of each client and using a mass customization strategy). This is why we can assume that the psychological traits of women and success factors that they recognize (such as knowledge and education) fit into the most-recent market trends and can contribute to the achievement of better results and, as a consequence, to an increase in the number of female managers in the future.

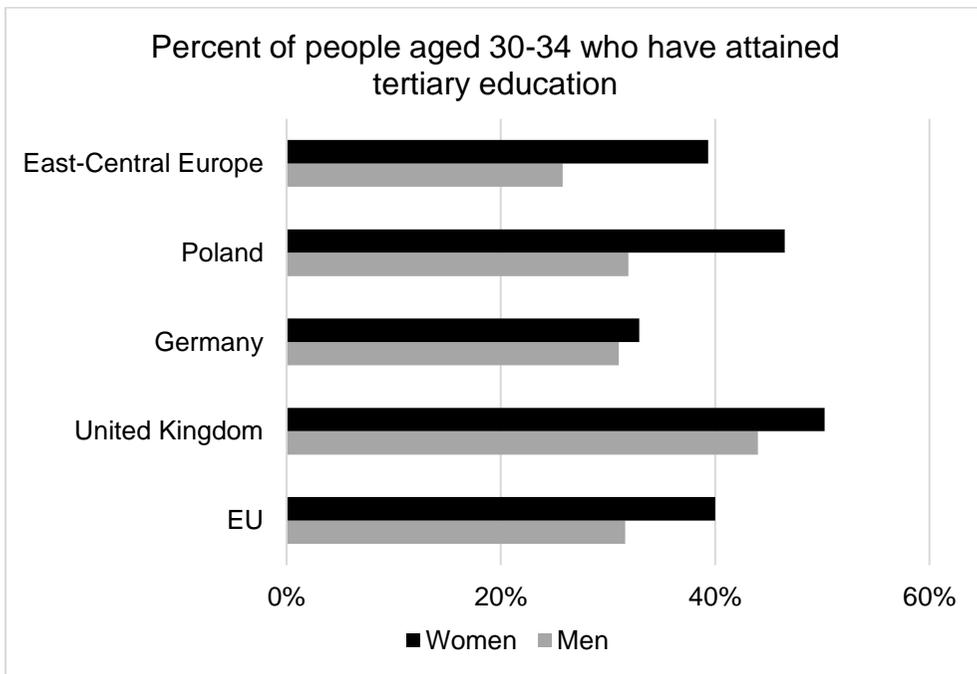


Figure 3.14 Percent of people aged 30-34 who have attained tertiary education in [%].

Source: own elaboration based on Forsal.pl

In summary, we state that:

- A common characteristic trait of all of the studied countries is the higher level of women's employment in services that is typically observed in highly developed countries.
- A similar percentage of women and men are self-employed. The differences between the genders are not high, amounting to approximately 5 percentage points in favor of men.
- A significant difference is observed between the self-employment of women from Poland and East-Central Europe when compared to women from the European Union, Germany, and the United Kingdom.
- The presented data shows that the number of women employing others in their businesses is lower by half than the number of men. Despite this statistic, Polish women are more active in this area than women from the European Union and East-Central Europe on average. German women are in second place, while British are the least active.
- Both in the European Union and East-Central Europe, women are employed in managerial positions less frequently than men by half. The highest disproportions between the numbers of male and female managers are observed in Germany, and the lowest – in Poland.
- Women more often than men associate gaining knowledge with key factors of being successful in business, which in turn directly translates to a higher number of women with a tertiary education. This is a very important trait in the modern, knowledge-based economy, and it can directly contribute to better results in business.

### 3.7. Conclusion

The purpose of this article was to demonstrate a comparative analysis of the business activity of women from the European Union, East-Central Europe, Poland, Germany, and the United Kingdom.

To accomplish this, three hypotheses were stated; of these, two were verified as true (H:1 and H:2), and one (H:3) was not supported enough by the presented data to be verified as positive (table 3.7).

Table 3.7 Hypotheses stated in the paper

Symbol of the hypothesis	Hypothesis's content	Hypothesis's verification
H:1	Women are less-frequently employed as managers than men.	Verified as true
H:2	Polish women are more active in business than in the European Union's more-developed countries.	Verified as true
H:3	Women from East-Central Europe are more active in business than women from the European Union's more-developed countries.	Not enough supporting data to be entirely verified as true.

Using empirical data extracted from the Eurostat and Gender Statistics by the World Bank Group databases, we proved that Polish women are more active in business than women from other countries in East-Central Europe as well as women from both Germany, the United Kingdom, and the entire European Union on average. This is why the unemployment rate of Polish women is lower than in East-Central Europe and similar to that observed in the European Union.

Despite this, it is clearly visible that the number of female managers is lower than the number of male managers by far in all of

the analyzed regions. What is more, men more frequently than women employ other people in their own businesses.

It has also been observed that, if women from East-Central Europe are employed as managers, they usually are working in small and micro-enterprises, while female managers from the European Union are usually employed in medium-sized and big companies.

However, comparing the psychological traits of men and women and the differences in success factors perceived by both groups, we can conclude that women's attitudes towards doing business and the strategies adopted by them respond better to current market trends and the need to fulfill the individual needs of customers. This is why there is a high probability that the number of female managers will grow in the future.

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## **CHAPTER 4**

### ***LIVING STANDARDS OF MEN AND WOMEN IN RETIREMENT – A COMPARISON ACROSS SELECTED EUROPEAN AND ASIAN COUNTRIES***

#### **4.1. Introduction**

Population aging is a global phenomenon. According to forecasts, one in five people worldwide will reach at least the age of 60 in 2030, of which almost every 6th will reach the age of 65. Even though the number of centenarians will increase tenfold, a positive trend of extending life expectancy will be visible. The occurrence of this phenomenon on the continents or in the countries continues with different intensity. However, regardless of the significant geographic perspective there is what can be described as the significant gender gap among this phenomenon. The article aims to compare the standard of living in retirement correlated to gender. It has been assumed that regardless of the level of socio-economic development of the country, there are significant differences between women and men decline in living standard at retirement. The study comprised of selected OECD Member states - European and Asian countries. Based on conducted analysis, the gender gap in losing of ability and becoming single for most countries has been shown. Except of Turkey, the retirement

pension is lower than salaries for employees – the authors stress that the studies do not allow any conclusions to be drawn for this subject in relation to gender, due to lack of data. The article is a research task.

The methodology used is own proposal of authors because of lack of empirical research of this topic. The research approach proposed here, tries to answer the question: “To what extent does the moment of retirement for men and women change the standard of living in relation to the level of development of the country they come from?”. The particular way to measure the change of standard of living is an authorial proposal which consists of: social, health and economic factors. The social factor analyses the changes of household structures in age groups. The new approach has been put forward to assess the proces of becoming single – singelisation. Health factor takes into account the level of disability, and economic factor – net replacement rates.

#### **4.2. Ageing societies as a global process**

Ageing of humans is a natural process, even though the line between adulthood and senile ages is not unequivocal. First of all, different terms of the word “age” are considered, indicating changes taking place in the human body (biological age), in attitudes and behaviors (psychological age), in social roles fulfilled (social age), as well as the number of years since birth (calendar age) (Bugajska, 2005, pp. 13-24). The discourse taking place in the fields of medical, biology, humanistic and social sciences is not finalized. However, defining the age threshold, even contractually, is a basic necessity (Rosset, 1967, p. 14). Only meeting this condition enables performing researches, including those of international scale. By virtue of practical reasons, the calendar age is mostly used. Then as the moment separating the adult age from senile age one may assume the retirement (social criterion),

or finishing professional activities (economical criterion), or the age set *a priori* (demographic criterion).

Marking the seniority threshold by the career activity criterion or attaining retirement has significant limitations. They stem from the differences in system regulations among particular countries. Consequently there are differences in the age limits that allow people the retirement, also in retirement age for men and women, and in existence of state social security system. Setting calendar age is another proposal, which is not flawed with weaknesses mentioned above, and pretty straightforward, even though different values apply here.

Social and economic literature mentions 50, 55, 60 and 65 as old age threshold (AARP - 50; World Health Organization - 60; (Bombol, Słaby 2011) - 55; (Avramow, Maskova 2003) - 65. The differences result from different research perspectives, availability of data and different moments in time of the research and prolonging the average life span. And this is why the beginning of old age in the article is set to 65 years for both sexes.

Ageing of societies concerns all continents, but in different extent. It is forecasted that the middle of XXI-st century will mark the distinct rise in number of people of age 60 and more and this number will be above 2 billion, and the number of people aged 80 and more will grow over 6 times. This will concern Africa the least (increasing number of people 60+ from 6% to 10%). And the rise in the share of seniors in Europe and Asia will be on the other hand similar, 12 and 13% respectively ([unfpa.org/ageingreport](http://unfpa.org/ageingreport) Accessed on 17 December 2016).

The phenomenon of ageing of people has led to increased interest in older people. Social and economics sciences engage in research that concerns specifically changes in health care systems, job market, retirement plans and others. It should be acknowledged however, that

one of the key parameters of analysis in these areas should be the sex of the older person, since there are significant differences in life expectancy for men and women (table 4.1). According to UNFPA (United Nations Population Fund) in 2050, the average woman will live 1/3 of her life in retirement, which is 3 years longer than the man.

Table 4.1 Global ageing indicators by sex (men/women)

Life expectancy	2011/2012		2050 projection	
	men	women	men	women
at birth	67.1	71.6	73.2	78.0
at 60	18.5	21.6	20.9	24.2
at 80	7.1	8.5	8.3	9.8

Source: (*Ageing in the Twenty-First Century*, p. 19).

Taking in consideration forecasted deepening of ageing of societies in particular countries, and on the other hand the differences between men and women in this process, it is interesting to ask a question about conditions of living of older people in retirement age.

### **4.3. Factors affecting the living standards in retirement**

The challenge posed by population aging is that economists have to find a way to expand two aspects of the impact of this phenomenon - one macro- and one microeconomic. In the first case, the consequences for public finances including expenditures on social welfare and health and the consequences for the labor market - the decreasing proportion between the population at working age and post-working age, need of employment of older people (Smedley, Whitten 2006) should be analysed. In the second case, the analysis is conducted from the perspective of changes in the level and quality of life of elderly persons, hereinafter referred to as general living standards. It should be emphasized that studies of the living conditions of elderly

focus mainly on the households to which they belong, less on the individuals.

Living standards of people in retirement are determined by many factors. They arise from the system, due to the circumstances of the country (level of its development, social and health policy, culture, etc.). On the other side they are related to the aspects associated with the specific circumstances and characteristics of the individual (type and level of incomes, health status, personality, activity, but also family situation or social status). Due to the complexity of the problem and the different nature of these factors, for the purposes of this article the authors suggest their division into the following groups:

1. systemic factors, including:
  - a. economical, described by the indicators, GDP, GDP per capita, HPI,
  - b. social, characterised by retirement age, the share of older people in the labour market, the system of care for the elderly, indicators HDI, BLI
  - c. the other, relating to the culture, religion and others.
2. individual factors, including:
  - a. economical, determined by: the retirement income, income from other sources, the level of savings, the types and amounts of expenditures,
  - b. social, including the position in the family, living alone,
  - c. biological, ie. life expectancy, healthy life, the type and level of disability,
  - d. others, which include social activity (religious, non-governmental, political, professional, cooperative, voluntary activities), tourist and cultural activity, or those which result from character traits.

Research shows that nowadays the scientist's attention is focused on the analysis of the selected individual factors, considered separately. Moreover, in most cases they are not held with regard to gender differences. Therefore, the article proposes a study on the relationship between gender and the deterioration of living standards from the transition into retirement.

#### **4.4. Survey methodology**

The objective of the own surveys is to compare the living conditions in which men and women in retirement exist in selected European and Asian countries. An assumption about statistically significant differences between women and men in lowering of the living standards related to the entering into the retirement, regardless of the level of socio-economic development of the country. The comparative studies have been performed based on the data from the OECD, Eurostat and National Statistical Offices. Selection of data sources was referred to the ability to make comparisons across the countries due to the application of a harmonised methodology as per the data collection.

The countries have been selected for comparison of Asian and European countries, mainly because of the similar increase of the people aged 60 years and above in the perspective of the year 2050. Two groups of countries were admitted to verify the hypothesis. The first classified all Asian member countries of the OECD, ie.: Israel, Japan, South Korea and Turkey. The second group of countries consisted of: Ireland, Germany, Poland and Italy (table 4.2). These countries differ from one another both in the general population as well as in the share of elderly (65 and more). Due to the research assumption, explanatory variable should belong to the group of systemic factors. As the level of HPI for all these countries the values averages (between 24.8 and 36.6), as well as the HDI does not differ

enough across these countries (Turkey - a highly developed country, the other - a very highly developed), GDP per capita has been selected as the explanatory. By the amount of GDP per capita, low-, medium-low-, medium-high- and high-income countries have been distinguished.

Table 4.2 Main system factors for selected countries

Country	Population (2013)	Percentage of population 65 and over (2015)	GDP per capita (2014)	HPI (2016)	HDI (2014)
	1,000	%	current international dollar	-	-
Korea	50,220	13.0	35,436 (medium-high)	24.8	0.898
Israel	7,733	10.9	33,526 (medium-low)	28.8	0.894
Japan	127,144	26.4	37,492 (medium-high)	28.3	0.891
Turkey	74,933	7.7	19,637 (low)	26.4	0.761
Germany	82,727	21.4	46,347 (medium-high)	29.8	0.916
Ireland	4,627	12.6	51,847 (high)	30.0	0.916
Italy	60,990	21.7	35,141 (medium-high)	28.1	0.873
Poland	38,217	15.3	25,286 (medium-low)	27.5	0.843

Source: (World Population Policies 2013), (Pensions at a Glance 2015), (International Monetary Fund), (Jeffrey, Wheatley, Abdallah, 2016), (Human Development Report 2015).

Due to the complexity of the problem and the different nature of the determinants of the living standard, from three designated groups one variable was selected: net replacement rates, which is intended to reflect changes in the economic senior status, singielisation, which belongs to the determinants of social status and disability, which refers to the biological characteristics of an elderly person.

#### **4.5. Analysis**

Further analysis will be carried out with 3 factors: health, social and economic. For these factors an attempt to make a measurement has been made for chosen countries as the case studies. This study allowed to prepare a coherent database in so far as the particular national statistical services and other authorities fulfill the recommendations of international organisations such as UN, OECD or WHO. In some cases due to deviations from a common methodological framework a similar measurement method has been proposed. These proposals could be biased leading to some over- or underestimates in a first step. The next steps of study attempt to impact assessment of the three abovementioned factors by setting new indicators. The finally analysed indicators refer to intensification process of studied phenomena either within the same age group or within the age group. The impact assessment will be undertaken together with the phenomenon escalation.

In the table 4.3 some risk intensification measures were conducted. The same methodology will be used for health factor (table 4.3).

$$ARI_i = \text{proportion of female beeing at risk}_i + \\ - \text{proportion of male beeing at risk}_i ,$$

where:

*ARI* – means absolute gender risk change with positive values for risk increase for female compared with male and with negative values for risk reduction for female. Difference between proportion means a value which could be interpreted in % by multiplying it by 100;

*i* – means the age group.

Statistical significance of proportion differences were examined for this measure through a procedure of testing the proportion in a binary population. The absolute risk change (together with the risk ratio) for those age groups for which the risk increase was statistically significant under condition  $p < 0.01$  were highlighted.

$$RR_i = \frac{\text{proportion of female beeing at risk}_i}{\text{proportion of male beeing at risk}_i}$$

where:

*RR* – means gender risk ratio with values over 1.000 for risk increase for female compared with male and with values below 1.000 for risk reduction for female;

*i* – means the age group.

**Social factor: becoming single (singelisation) of older persons**

Table 4.3 Females/males in a one-person household to females/males total in households members by age groups (census data)

Country/ census year	Age group	Sex		Female vs. male within the age group	
		female	male	absolute gender risk increase (ARI +)/ reduction (ARR –)	gender risk ratio (RR)
Korea 2010	Total	4.1%	6.1%	–0.020	0.672
	0-59	5.1%	7.0%	–0.019	0.729
	0-64	4.9%	6.7%	–0.018	0.731
	60+	0.5%	0.5%	0.000	1.000
	65+	0.4%	0.3%	<b>+0.001</b>	<b>1.333</b>
Israel 2008	Total	7.7%	5.6%	<b>+0.021</b>	<b>1.375</b>
	0-59	3.7%	4.8%	–0.011	0.771
	0-64	4.3%	4.9%	–0.006	0.878
	60+	30.9%	11.6%	<b>+0.193</b>	<b>2.664</b>
	65+	36.6%	13.4%	<b>+0.232</b>	<b>2.731</b>
Japan 2010	Total	12.4%	14.4%	–0.020	0.861
	0-59	8.5%	14.3%	–0.058	0.594
	0-64	9.4%	15.1%	–0.057	0.623
	60+	20.4%	14.5%	<b>+0.059</b>	<b>1.407</b>
	65+	21.9%	11.5%	<b>+0.104</b>	<b>1.904</b>
Turkey* 2011	Total	9.2%	1.5%	<b>+0.077</b>	<b>6.133</b>
	0-59	2.8%	0.2%	<b>+0.026</b>	<b>14.000</b>
	0-64	3.9%	0.4%	<b>+0.035</b>	<b>9.750</b>
	60+	43.8%	10.2%	<b>+0.336</b>	<b>4.294</b>
	65+	52.7%	14.0%	<b>+0.387</b>	<b>3.764</b>
Germany 2011	Total	18.5%	15.6%	<b>+0.029</b>	<b>1.186</b>
	0-59	11.1%	15.3%	–0.042	0.725
	0-64	11.9%	15.3%	–0.034	0.778
	60+	37.3%	16.5%	<b>+0.208</b>	<b>2.261</b>
	65+	41.5%	16.8%	<b>+0.247</b>	<b>2.470</b>

Ireland 2011	Total	8.7%	8.6%	<b>+0.001</b>	<b>1.012</b>
	0-59	4.9%	6.6%	-0.017	0.742
	0-64	5.5%	7.2%	-0.017	0.764
	60+	27.7%	19.6%	<b>+0.081</b>	<b>1.413</b>
	65+	32.4%	21.1%	<b>+0.113</b>	<b>1.536</b>
Italy 2011	Total	13.8%	10.4%	<b>+0.034</b>	<b>1.327</b>
	0-59	6.4%	9.1%	-0.027	0.703
	0-64	7.1%	9.3%	-0.022	0.763
	60+	31.7%	14.6%	<b>+0.171</b>	<b>2.171</b>
	65+	36.4%	15.6%	<b>+0.208</b>	<b>2.333</b>
Poland 2011	Total	10.2%	6.8%	<b>+0.034</b>	<b>1.500</b>
	0-59	4.9%	5.7%	-0.008	0.860
	0-64	5.9%	6.0%	-0.001	0.983
	60+	27.9%	12.3%	<b>+0.156</b>	<b>2.268</b>
	65+	32.0%	13.3%	<b>+0.187</b>	<b>2.406</b>

\* Deviation from the definition: no category that fits single household, data according to marital status - widowed to population 15+ , in relation to other countries the proportion might be overestimated.

Source: own calculation based on Census data (2008-2011), except of Korea (household projection).

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Turkey: STATISTICS TURKEY, 2011 Population and Housing Census, <http://www.turkstat.gov.tr/PreTablo>, (Accessed on 31 December 2016).

Germany, Ireland, Italy, Poland: Eurostat, The 2011 Census database, <https://ec.europa.eu/CensusHub2>, (Accessed on 31 December 2016).

In case of European countries full coherence of data exists – all countries carried out the national censuses at the same year with the same methodology. The data for the research for persons living alone and persons living in a private household were taken from the 2011 Census database of the European Statistical System. Some problems appear in the analysis of Asian countries. The Central Bureau of Statistics conducted the last one of Israel's Population Census in 2008. The methodology of estimating the singelisation intensity in Israel should fit the European methodology. The same situation – fitting methodology – we see for Japan. The population censuses in Japan have been conducted almost every five years by Statistics Bureau, Ministry of Internal Affairs and Communications, the 2010 Population Census was the nineteenth one. For Korea and Turkey expected data were unavailable, at least not presented in accessible databases of National Statistics (National Statistical Offices) dedicated to census results. Theoretically Turkish Statistical Institute carried out the population and housing survey in 2011 in accordance with European Union member countries, but in the database Population and Housing Census, 2011 the Institute does not publish the number of households by size of household and by sex of households members. In the case of Turkey the analysis deals with widowed instead of one-person household. For similar reasons – although in Korea there is census quinquennial – the data for one-person household were taken from Household Projection instead of census results. In this case, we can assume, there is no significant overestimation, because of methodology of such projections – this kind of analytical work is developed on basis of census figures.

In the analysed cases the process of population aging is associated with the escalation of the singelisation process. The exception is the society of Korea. A likely explanation for this difference

is the specific culture of Korea, which is based on the Confucian tradition. According to the tradition, the most important part of Korean life is the family, for which a woman should care.

In remaining countries the percentage of one-person household members in household members total increases for the elderly persons. The results for Turkey has to be interpreted very carefully, and not over-interpreted. The process of widowhood does not have to be linked with the phenomenon of getting being single, especially in analysed age groups.

Gender risk intensification of singelisation phenomenon in the highest age classes has been observed during the study. For persons at age 65 years and older the risk increase varies from 0.1 percentage points (33.3%) in the case of Korea to 23.2 percentage points (173.1%) for Isreal. In all countries the gender singelisation risk was considered statistically significant. In most cases we obtained similar results for the age group 60+. Conclusions for Turkey should be made carefully so far we try to interpret pure numbers, but on the other hand the statistically significant difference in the sex groups has been confirmed.

With a view to checking whether the life position of elderly persons differ from the younger in both sex groups an analysis has been performed and particular indicators have been validated. The ratios to changes in the risk intensity among the elderly followed the formula:

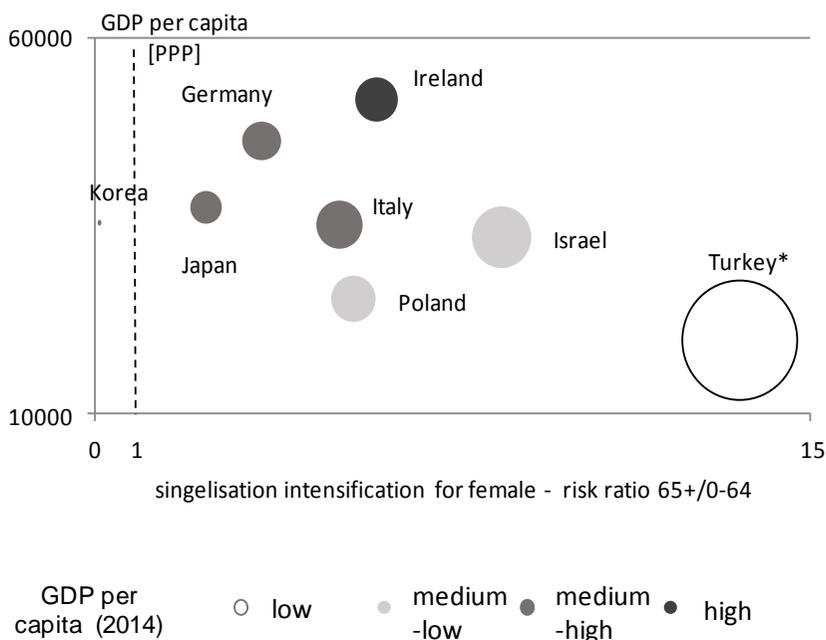
$$RR_j = \frac{\text{proportion of persons 65+ beeing at risk}_j}{\text{proportion of persons 0-64 beeing at risk}_j}$$

where:

$RR$  – means intensification risk ratio with values over 1.000 for risk increase for older persons (65+) compared with persons at age below 65 years;

$j$  – means the sex group.

Figure 4.1 illustrates the relationship between GDP, gender and intensity of singelisation process if the age-threshold is exceeded. The singelisation phenomenon rises among the elderly, though more steadily for women than for men. Among the older women, the intensification risk ratio varied from 2.33 for Japan to 8.51 for Israel. Among the men subpopulation the validated ratio was 1.57 percentage points lower as in the women subpopulation for Japan, for Israel the difference reached 5.78 percentage points. In Korea this process has not been observed – the point is located left to the no-change-line (at 1.00). For Turkey the intensification was much higher (13.51), but because of divergences of methodology the interpretation should be made carefully – we observe the rise of widowhood intensity.



The abscissa of the bubble centre represents intensification risk ratio over the threshold 65 years within female subpopulation. The radius of the bubble shall be proportional to the gender gap calculated as risk ratio for female minus risk ratio for male. (\*For Turkey the process of singelisation was more intense for male as for female, the radius may be multiplied by -1, besides in this case the methodology differ - see the explanation under table 4.3)

Figure 4.1 Intensification of singelisation risk depending on ageing compared with economic growth in selected countries

Source: Own calculation based on national census data (see table 4.3) and World Economic Outlook Database, International Monetary Fund.

However, it cannot be clearly concluded whether the singelisation risk decreases with higher well-being level. It is possible to verify, that in medium-high well-being level countries the singelisation risk seems to be lower. Ireland with the highest value of GDP per capita could be classified as a cluster together with Poland and Israel. Therefore, the intensity risk of getting being single among the elderly is not

unequivocally negatively correlated with the suggested economic factor GDP. On the other hand the disparity between women and men has been confirmed.

### Health factor: diasability of older persons

Table 4.4 Persons with a disability/ability limitation as a percentage of whole population by age group

Country/ survey	Age group	Sex		Female vs. male within the age group	
		female	male	absolute gender risk increase (ARI +)/ reduction (ARR -)	gender risk ratio (RR)
Korea <sup>a</sup> KNHANES V (2010)	Total 1+	66.4%	58.3%	<b>+0.081</b>	<b>1.139</b>
	25-44	62.8%	58.1%	+0.047	1.081
	45-64	71.9%	65.4%	<b>+0.065</b>	<b>1.099</b>
	65+	75.5%	62.9%	<b>+0.126</b>	<b>1.200</b>
Israel <sup>a</sup> ICBS (2010)	Total	21.2%	16.7%		
	20+	6.8%	6.1%	<b>+0.045</b>	<b>1.269</b>
	25-44	26.8%	22.4%	+0.007	1.115
	45-64	61.4%	48.7%	+0.044	1.196
	65+			<b>+0.127</b>	<b>1.261</b>
Japan <sup>a</sup> CSLC (2010)	Total	71.4%	68.5%		
	15+	61.5%	61.3%	<b>+0.029</b>	<b>1.042</b>
	25-44	74.6%	72.0%	+0.002	1.003
	45-64	83.0%	79.9%	<b>+0.026</b>	<b>1.036</b>
	65+			<b>+0.031</b>	<b>1.039</b>
Turkey <sup>b</sup> Census (2011)	Total	9.5%	6.8%		
	15+	5.8%	4.8%	+0.027	1.397
	15-64	39.3%	28.7%	+0.010	1.208
	65+			<b>+0.106</b>	<b>1.369</b>
Germany <sup>b</sup> EHSIS (2012)	Total				
	15+	19.2%	22.6%	<b>+0.034</b>	<b>1,177</b>
	15-64	16.2%	17.6%	+0.014	1,089
	65+	30.5%	37.1%	<b>+0.066</b>	<b>1,213</b>

Ireland <sup>b</sup> Census (2011)	Total				
	15+	15.6%	14.5%	<b>+0.011</b>	<b>1.076</b>
	0-64	10.8%	15.6%	-0.048	0.692
	65+	40.7%	35.0%	<b>+0.057</b>	<b>1.163</b>
Italy <sup>b</sup> EHSIS (2012)	Total				
	15+	17.2%	11.5%	<b>+0.057</b>	<b>1.496</b>
	15-64	7.0%	5.2%	<b>+0.018</b>	<b>1.346</b>
	65+	45.4%	34.4%	<b>+0.110</b>	<b>1.320</b>
Poland <sup>b</sup> EHSIS (2012)	Total	21.1%	14.1%		
	15+	12.5%	10.8%	<b>+0.070</b>	<b>1.496</b>
	15-64	56.0%	37.0%	+0.017	1.157
	65+			<b>+0.190</b>	<b>1.514</b>

a Percentage of the population (of relevant sex and age group), who report their health not to be 'good', 'very good/excellent'. For Israel significant deviation from the definition: proportion can be underestimated.

b Persons with a disability as a percentage of all population (of relevant sex and age group).

Source: own calculation based on national surveys dedicated to disability/health status.

Korea, Israel, Japan: OECD, *Perceived health status by age and gender 2010*, OECD (2017), "Health status", OECD Health Statistics (database), DOI: <http://dx.doi.org/10.1787/data-00540-en>, (Accessed on 05 January 2017).

Turkey: STATISTICS TURKEY, 2011 Population and Housing Census, <http://www.turkstat.gov.tr/PreTablo>, (Accessed on 31 December 2016).

Germany, Italy, Poland: EUROSTAT, European Health and Social Integration Survey (EHSIS 2012)

Ireland: STATISTICS Ireland, StatBank, Central Statistics Office, Ireland

In the further analysis the issue of health restrictions was considered. The main idea for estimating the scale of health problems was presenting of disability scope. This goal has been achieved in the case of European countries and for Turkey. Disabled persons have been defined as those who face barriers to participation associated, inter alia, with a health problem or basic activity limitation according to the biopsychosocial model introduced by the International Classification of Functioning, Disability and Health (ICF, World Health Organization, 2001). World Health Organization emphasises in many reports, that those who live to old age will experience increasing difficulties in functioning.

The European Health and Social Integration Survey (EHSIS 2012) was designed to measure the biopsychosocial model of disability in the population at age 15 years and older. The results refer to persons aged 15 years and older living in private households. According to the model applied in the survey, people with disabilities were those who face barriers to participation in any of the 10 life areas. Therefore, a person identifying a health problem or basic activity limitation as barrier in any life domain was categorised as disabled. The data refer to 2012. Ireland did not run the survey but fully comparable data resulted from the national census 2011. The figures for Turkish society were obtained similarly.

There is still existing lack of detailed data on disabled persons in Asian countries. In some of these countries "disability" has been a dirty word, the existing statistics concern at least physically disabled, mentally ill or handicapped persons. For the analysis of societies in Korea, Israel and Japan the integrated indicator 'perceived health status' from OECD database has been chosen instead of the primarily defined variable. There is not yet full standardisation of the measurement of perceived health status across OECD countries.

A standard health interview survey instrument has been recommended to measure this statistics. The recommendation is described in detail in "Health Interview Surveys: Towards International Harmonization of Methods and Instruments," WHO Regional Office for Europe, 1996, and is as follows: How is your health in general? ('Very good', 'Good', 'Fair', 'Bad', 'Very bad'). Not all countries have adopted this standardised instrument. The questions and response categories used in national health surveys differ from this standardised instrument.

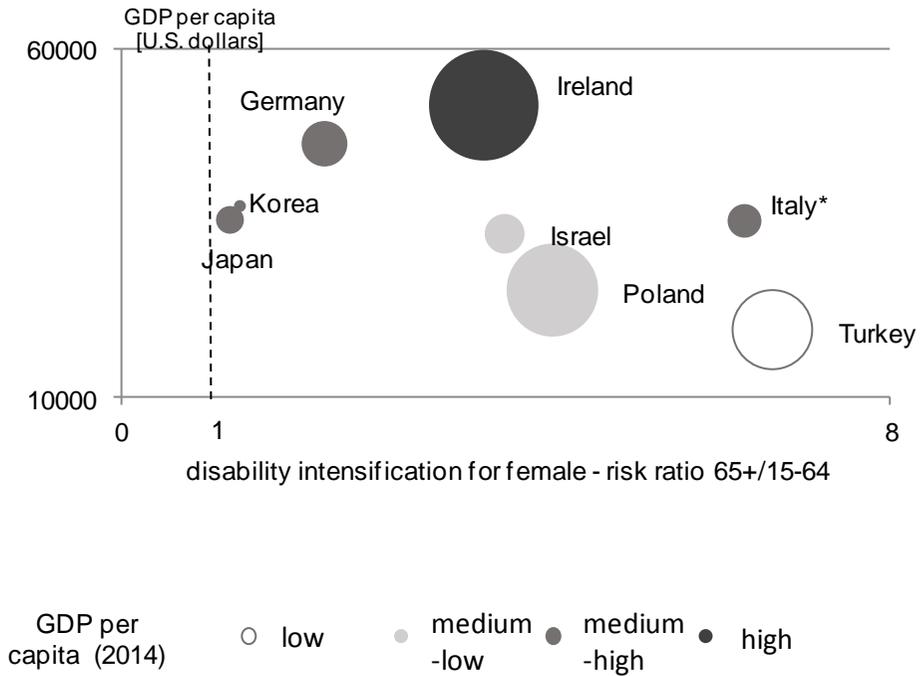
The Korea National Health and Nutrition Examination Survey (KNHANES) is a national surveillance system that has been assessing the health and nutritional status of Koreans. Based on the National Health Promotion Act, the surveys have been conducted by the Korea Centers for Disease Control and Prevention (KCDC). This nationally representative cross-sectional survey collects information with three component surveys: health interview, health examination and nutrition survey. The sample size of the National Health and Examination Nutrition Survey in 2010 (KNHANES V) was 8,598 people. It excludes institutional dwelling units (e.g. dormitories, social welfare institutions, prisons, military camps, etc.) and foreigners.

The Israeli Social Survey is an annual survey of individuals, excluding institutional population and residents living outside of localities, especially in the southern district. Data is based on the question: How is your health, overall? In the Israeli Social Survey questionnaires, there is no category that fits into well perceived health status. Therefore the proportion of people reporting to be not in good or better health might be underestimated. The coverage of population structure differs from that of the other countries – population aged 20 years old and older has been interviewed.

In Japan, the Ministry of Health, Labour and Welfare conduct Comprehensive Survey of Living Conditions every three years. This

survey covers households and household members nationwide. From 1989, the data refers to the population 15 years old and older. The question and response categories in 2010 were 'Good, Sort of good, Fair, Not so good, Bad'. The data referred to those reporting being 'Fair, Not so good, Bad'. The denominator includes those whose perceived health status is unknown.

Gender risk intensification of ability limitation phenomenon in the highest age classes has been noticed. Percentage of women being disabled/with ability limitation was significantly higher than percentage of men in the age classes 65 years and older and for whole population – mostly over 15 years old. For persons at age 65 years and older the gender risk increase varies from 3.1 percentage points (3.9%) in case of Japan to 12.0 percentage points (51.4%) for Poland. In Italy the gender risk is significant for younger people also. Conclusions in that point could be correlated with statistically enhanced longevity of women worldwide. The second term correlated to these requests should be increasing the percentage of population disabled persons among elderly.



The abscissa of the bubble centre represents intensification risk ratio over the threshold 65 years within female subpopulation. The radius of the bubble shall be proportional to the gender gap calculated as risk ratio for female minus risk ratio for male. (\*For Italy the process of ability losing was more intense for male than for female, the radius may be multiplied by -1)

Figure 4.2 Intensification of disability/ability limitation risk depending on ageing compared with economic growth in selected countries

Source: Own calculation based on national health survey data (see table 3.4) and World Economic Outlook Database, International Monetary Fund.

Like in previous section, it cannot be clearly concluded whether the disability/ability limitation risk decreases with higher well-being level. However, the intensity risk of becoming disabled among the elderly should be negatively correlated with the GDP for countries in which the recommended definition of disabled person is considered in national

social surveys. In addition, Ireland with the highest value of GDP could again be classified to a cluster together with Poland and Israel. The gender gap has been confirmed, for nearly all cases the intensity risk of becoming disabled is higher for women.

**Economic factor: deterioration of the economic status**

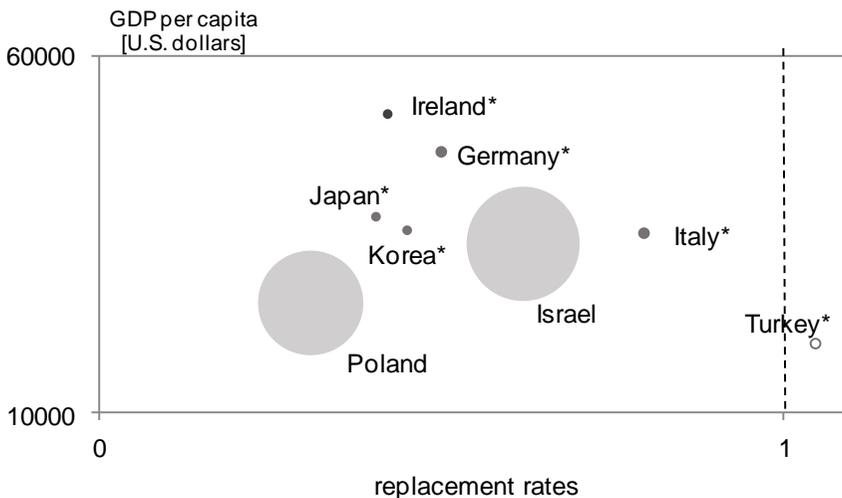
Table 4.5 Individual well-being indicators for elderly in selected countries

Country	Retirement age		Expected years in retirement by sex		Net replacement rates (both sex groups)	
	a effective	b official	female	male		
	female	male	female	male		
Korea	a	70.6	72.9	16.6	11.4	45.0%
	b	61.0	61.0			
Israel	a	66.4	67.8	20.3	16.3	68.8% (61.9% for female)
	b	62.0	67.0			
Japan	a	67.6	69.3	21.8	15.8	40.4%
	b	65.0	65.0			
Turkey	a	64.3	65.2	17.1	13.8	104.8%
	b	58.0	60.0			
Germany	a	62.7	62.7	22.8	19.4	50.0%
	b	65.0	65.0			
Poland	a	59.5	62.1	23.9	16.6	50.7%
	b	60.3	65.3			
Italy	a	61.1	61.4	25.4	21.1	79.7%
	b	62.0	62.5			
Ireland	a	62.6	65.4	22.9	17.3	42.2%
	b	66.0	66.0			

Source: (Average effective age of retirement versus the normal retirement age, 2009-2014, OECD); (Pensions at a Glance, OECD 2015, pp. 165, 366, 323, 301, 298, 294, 285, 288, 264).

Older people receive income from a wide variety of sources, including retirement benefits from public system or employer pension programs, the returns from accumulated savings and labour earnings. For the further analysis we concentrate on a simple situation – the only income illustrates the retirement benefit from a public system. The net replacement rate is equal to the ratio of the net pension entitlement to life-time average net earnings. The key problem remains that, the national authorities do not calculate this basic rate separately for men and women. Thereby the gender gap can not be obtained. Some remarks are possible due to using of Israel data and some simulation made for hypothetical individuals by the Polish Social Insurance Institution (ZUS). The results were used to prepare the figure 4.3.

Figure 4.3 Net replacement rates compared with economic growth in selected countries



The abscissa of the bubble centre represents net replacement rates for whole population (both sex groups). The radius of the bubble shall be proportional to the adequate gender gap. (\*For all countries apart from Israel and Poland, data required for the calculations of gender gap are not available).

Source: OECD (see table 4.5) and (Chądryński, Osiecki, 2015).

The living standards measured by the ratio of income in retirement in relation to income earned from work decreases in most countries (except Turkey). There is no adequate data to verify the hypothesis of intensifying differences in the sex groups. Indicators for Israeli and Polish show that the situation of women in this regard is clearly less favorable, while living longer in retirement, which means a longer period of risk of poverty.

#### **4.6. Conclusions**

Ageing populations, ie. the lengthening of life expectancy, while declining birth, is observed throughout the world. Statistics also confirmed the observation that its progress is different for women and men, which is reflected primarily in life expectancy. As a result, the question arises about the conditions of life in which there are women and men in retirement. Critical review of scientific publications revealed a lack of studies on this topic.

Group of factors determining the level and quality of life of older people is diverse and shaped at the level of the state and dependent on the senior. At the same time this group includes both elements of a measurable, quantitative and soft, subjective and descriptive. They hypothesized that, regardless of the level of socio-economic development of the country, there are significant differences between women and men in lowering the standard of living at the time of entering the period of retirement. In order to verify that, the GDP per capita was used as a feature characterizing the development level of the country and three indicators related respectively to the economic, social and health of an elderly person.

Acompleted analyses allow us to conclude the existence of a statistically significant difference between women and men in the

intensity of the loss of disability/ability and phenomena of singelisation (for 7 out of 8 countries surveyed). These phenomena are independent of the level of development of the analysed economies. Similarly, the replacement rate, but these analyses were carried out only for the two countries due to the lack of data in relation to gender in other countries.

The conclusions have limitations that result from a lack of data collection by gender and applied research methodology. First of all, the number of the countries studied, their affiliation to one of the world organization, as well as the diversity of research approaches by national statistical organizations and different levels of data aggregation.

The article presents the first results of research in the international perspective on the living conditions of women and men at the time of retirement. Despite its limitations it demonstrates the legitimacy of the search for indicators and metrics describing the situation of both women and men in retirement, taking into account a variety of factors. The authors agree that the use of chronological age for isolation of the elderly, despite its imperfections, is an essential condition for making measurements, but it cannot be the only characteristic of the life situation of seniors.

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## **CHAPTER 5**

### ***BELONGING TO A SOCIO-ECONOMIC GROUP OF POPULATION AS A DETERMINANT OF HOUSEHOLD SAVINGS RATE IN POLAND***

#### **5.1. Introduction**

Savings generated by the household sector are of great importance both for the household, as well as for the entire economy. In microeconomic terms, increase in savings creates conditions for the growth of consumption in the future (Anioła, Gołaś 2013), testifies to its financial condition (Bywalec 2009) and the standard of living of the family. The macroeconomic dimension of household savings are the main source of financial capital in the economy, and thus become a source of investment, which translates into growth of the country (Ang 2009, Wójcik 2007).

The starting point in the analysis of savings behavior of households are the economic theories on saving. One theory of saving was developed by Keynes (1936), who was a strong supporter of the thesis about the disproportionate, considering that savings depend primarily on current income, and that the higher absolute level of income generally corresponds to the higher savings rate. Another economic theory related to savings is the Friedman (1957) theory of

permanent income. It assumes that household savings depend not so much on current income as on income from fixed (permanent) income, defined as the average income obtained throughout life (Anioła, Gołaś 2012). In contrast, the Friedman theory assumes the stability in consumption patterns and balancing to zero deviations of the current income from permanent income (Rószkiewicz, 2008). The more units are able to predict the path of growth of their income over time and the more the income is stable (permanent), the lower the saving rate from this income may be (Liberda, 1999). The expectance of positive changes regarding their own income in the future will, according to this theory, result in increase in current consumption, and therefore relatively smaller savings compared to a group of pessimists (Fatula 2002). Modigliani's life cycle hypothesis assumes a specific chronology of events, related to income level growing with time, until they reach retirement age. In the period of working age it is necessary to collect the savings to pay off the liabilities assumed, when the income was below the consumer aspirations, and to equalize the level of consumption in retirement (Dirschmid, Glatzer 2004).

Due to the importance of savings for economic development it becomes important to know the phenomenon of saving and to identify conditions affecting the household decision of not spending their income for current consumption.

The occurrence of savings and savings rate of households may be affected by factors of a different nature, direction and impact strength. Determinants of savings can be divided into internal, ie. directly related to the household, as well as external, independent from it (Skikiewicz 2013).

Among the external factors, above all the economic factors mark out, ie. general economic situation and its prospects, the occurrence of constraints in the supply of certain goods, geographical and socio-

cultural factors (Krupa et al. 2012). Among the internal factors, demographic and socio-economic characteristics should be distinguished among others (Wołoszyn, Głowicka-Wołoszyn 2015). The results of empirical studies tend also to recognize the subjective expectations of the consumer as a key element shaping behavior savings (Rószkiewicz, 2008).

The aim of the study was to determine the relationship between selected socio-economic determinants of households and the rate of their savings. It dealt with two main factors in the savings rate, ie. disposable income of the household and main source of income.

## **5.2. Method and data**

The study was based on unpublished, unidentifiable unit data from Central Statistical Office in Warsaw research. The data related to household surveys conducted in the years 2005, 2010 and 2015 and included respectively 34 767, 37 412 and 37 148 households.

Years 2005, 2010 and 2015 were selected for the following reasons:

- 2005 - because that on 1 May 2004 Poland accessed the European Union, which resulted in improvement of the income situation of households connected with the general improvement in the economic situation of the country in following years, measured by GDP, as well as receiving the farmers' subsidies from the EU connection with the use of farms, emigration after the opening of the new labor markets, etc..
- 2010 - because the improvement in the income situation of households in Poland have been registering real until this very year, despite a slight downturn in 2009-2010 caused by the

global crisis, a small deterioration of the situation was observed only since 2011 (Household budgets 2006-2014).

- 2015 - due to the availability of the latest data.

In each of the examined years, in the households sample five groups were identified, based on income quintiles based on its equivalent disposable income. In addition, households were analyzed in a seven socio-economic groups, which are distinguished on the basis of the origin of the main sources of income in the household. These were households:

- of employees in manual labour positions,
- of employees in non-manual labour positions,
- of farmers,
- of the self-employed,
- of retirees,
- of pensioners,
- of living on unearned income sources.

The percentage share of the number of so-created subgroups of households in the samples analyzed each year are presented in table 5.1.

Table 5.1 Percentage of households belonging to the group of income and socio-economic group of population in the sample of households surveyed in 2005, 2010 and 2015

Group of income	Households							
	of employees in manual labour positions	of employees in non-manual labour positions	of farmers	of the self-employed	of retirees	of pensioners	of living on unearned income sources	Total
2005								
I	4,9	0,8	1,7	0,6	2,1	2,9	3,3	16,3
II	5,8	1,8	0,7	0,7	5,0	3,4	1,7	19,1
III	5,3	3,0	0,6	0,9	7,1	2,7	1,2	20,8
IV	4,6	4,9	0,7	1,3	7,3	2,0	0,7	21,5
V	2,4	9,6	0,9	2,5	5,4	0,8	0,6	22,3
Total	23,1	20,0	4,7	5,9	27,0	11,8	7,5	100,0
2010								
I	5,4	1,0	1,5	0,6	4,5	2,7	2,3	18,0
II	6,2	2,1	0,6	0,8	7,4	2,0	0,9	20,0
III	6,0	3,7	0,5	1,3	6,9	1,3	0,5	20,3
IV	5,0	6,3	0,5	1,6	5,7	0,8	0,4	20,2
V	2,6	10,9	0,9	2,9	3,5	0,3	0,4	21,4
Total	25,2	24,0	4,0	7,2	28,0	7,2	4,4	100,0
2015								
I	5,2	1,5	1,7	0,6	4,0	2,4	2,5	17,9
II	6,3	2,6	0,6	0,9	6,9	1,8	0,9	19,9
III	5,8	4,1	0,5	1,1	7,0	1,3	0,6	20,5
IV	5,0	6,4	0,4	1,4	6,0	0,7	0,3	20,3
V	3,0	10,6	0,7	2,7	3,8	0,3	0,3	21,4
Total	25,3	25,2	3,9	6,8	27,7	6,5	4,6	100,0

Source: own study based on unpublished data from individual household budget survey conducted by the *CSO in Poland for the years 2005, 2010, 2015*.

Saving rate of households is defined as the quotient of the difference in disposable income and expenses to disposable income (Fatuła 2013), although in the literature also another word definitions can be found.

The aggregate savings rate in the *i*-th socio-economic group is the average saving rates in its quintile subgroups, weighted by the share of income of these subgroups in the income of considered socio-economic group. It is therefore linked to the aggregate savings rate in the *i*-th socio-economic group and *j*-th quintile income group using the formula:

$$s_{i\bullet} = \frac{d_{i\bullet} - w_{i\bullet}}{d_{i\bullet}} = \sum_{j=1}^5 \frac{d_{ij} - w_{ij}}{d_{i\bullet}} = \sum_{j=1}^5 \frac{d_{ij}}{d_{i\bullet}} \cdot s_{ij},$$

Wherein  $s_{ij} = \frac{d_{ij} - w_{ij}}{d_{ij}},$

where:

$d_{i\bullet}$  ( $w_{i\bullet}$ ) - aggregate income (expenses) in the *i*-th socio-economic group,

$d_{ij}$ ,  $w_{ij}$ ,  $s_{ij}$  - respectively, income, expenses and savings rate in the *i*-th socio-economic group and *j*-th quintile group.

Occasionally, a small proportion of households in the first quintile group experienced the phenomenon of negative disposable income. According to the Central Statistical Office methodology recommended by the study of income distribution, negative values of disposable income were replaced by the zero value (Methodology of household budget survey 2011). This could only slightly increase savings rate in

the first income group, but it must be emphasized that the results in this income group should be approached with caution.

In each of examined households subgroups, the percentage of households subjectively assessing their financial situation as good or very good due to the reported in the literature links of low saving rates and high levels of optimism were also determined (Ewing, Payne 1998).

### **5.3. Characteristics of socio-economic groups of the population in Poland**

The main subject of research in this study were households in Poland, which were analyzed according to types, separated on the basis of the main source of income. Household in the research Budgets of households, carried out by the Central Statistical Office, is defined as a group of people related to each other or unrelated, but living together and persistent (households dormitories) or individual independently maintained, no matter whether you live alone, or also with other people (single households) (Methodology of household budget survey 2011).

Based on the obtained main source of income, socio-economic groups of the population were isolated, including households of manual workers and non-manual workers, farmers, self-employed, retirees, pensioners and households living on unearned sources of income. The main (prevailing) source of income for households of employees is income from employment in the public or private sector, farmers' households - income from a private farm in agriculture, households of the self-employed - income from self-employment outside a private farm in agriculture, performance of professional services, while households and pensioners - pension and disability (Methodology of household budget survey 2011).

Belonging to a socio-economic group of population is an important criterion for the classification of households, because it tells not only

about the principal sources of their income, but indirectly also contains information about their other characteristics. This affiliation remains in a clear correlation among other with the level of education and economic activities of the members of the household, the number of people in the family, as well as the level of income generated. Depending on the nature of the job, as well as due to diverse backgrounds, financial behavior of households belonging to different socio-economic groups are also different. These factors cause that even with the same level of income in households belonging to different types, height, and the savings rate may be different (Wołoszyn, Głowicka-Wołoszyn 2015).

The structure of the socio-economic households due to the formation of the specific structure of the sources of their income. In 2015, the primary group of Polish households were those whose main source of income was income from employment. The share of employees in the structure of Polish households is steadily growing (especially white-collar), and in 2015 they accounted for half of them. The second largest group of households are retirees, whose share also gradually increasing and amounted to 27.7% in 2015. The phenomenon of increase in the share of households of retirees can be associated among other things with the progressive aging of the population. The smallest share in the structure have while farmers' households (3,9%), pensioners (6.5%) and the self-employed (6.8% in 2015). In the studied period was observed in addition decrease in the percentage of the least numerous, ie. farmers' households by 0,9 p.p. while households of pensioners by 5.3 p.p. (figure. 5.1).

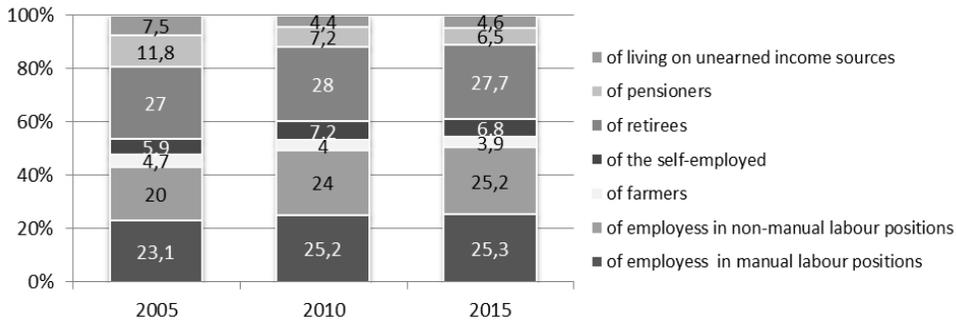


Figure 5.1 Structure of households by socio-economic groups of the population in Poland in 2005 and 2015 (%)

Source: Own calculations based on data from CSO of Poland (Household budgets in 2005 and 2015).

The different socio-economic groups of the population are highly diverse in terms of the average number of people in the family, education level and economic activity of its members. A characteristic feature of most numerous social group in Poland, ie. households of manual workers is the high average number of people in the family and low level of education its members. In 2015, only 6.2% of the total number of members of this group of households had a higher level of education, while the average for all households was 18.5%. In turn, in white-collar workers households up 43.1% of members had higher education. The members of these households along with those from households of self-employed belong to the most educated (table 5.2).

A specific group of households are the households of farmers, which is distinguished by the highest average household size, amounting 3.87 person in 2015. This situation is undoubtedly caused by maintaining the tradition of multi-generational families in this group of households, as well as greater fertility of rural households compared to urban households. Among all groups of households economically active (except for households of retirees and pensioners), farmers'

households distinguishes the lowest percentage of people with higher level of education (only 6.4% in 2015) (table 5.2).

Analyzing the structure of households by state of economic activity with dividing them into working, receiving social benefits and dependent, as the most active households can be considered white-collar workers, farmers and self-employed. The percentage of people working in these households in 2015 accounted for more than 50%. In the case of farm workers and white-collar self-employed, their situation is related to the relatively small average number of people in the family. A high percentage of people working in the households of farmers stems from occurring in this group of high level of hidden unemployment. Due to still remaining agrarian fragmentation, many farms in Poland does not produce on the market, and all their production is mainly intended for self-supply. As a result, an important source of income for many of them are revenues from direct subsidies from the European Union and the income from social transfers (pensions).

In 2015, the percentage of people receiving social insurance benefits in farmers' households amounted 14.4%, ie. 7.5 p.p. more than in households of white-collar employees and up by 9.2 p.p. more than in the households of the self-employed.

Households sustained mainly from social benefits, ie. pensions, are mostly small - single and double (the average size of these entities does not exceed 2 people). In such households, a relatively high percentage of people is dependent on them, which is a negative phenomenon. Pension benefits should be the basis for maintaining the recipient of this benefit (table. 5.2).

Table 5.2 Selected characteristics of household in a socio-economic groups of the population in Poland in 2005 and 2015

Specification	Households						
	total	of employees		of farmers	of the self-employed	of retirees	of pensioners
		in manual labour positions	in non-manual labour positions				
Average number of person in a households							
2005	3,08	3,82	3,14	4,39	3,47	2,19	2,42
2015	2,72	3,41	2,89	3,87	3,19	1,93	1,86
Rate of change 2015/2005 (2005=100%)	88,3	89,3	92,0	88,2	91,9	88,1	76,9
Percentage of people in households with high level of education (%)							
2005	10,7	2,4	29,8	2,4	17,0	10,1	2,7
2015	18,5	6,2	43,1	6,4	30,4	13,1	4,2
Change 2015/2005 (in p.p.)	7,8	3,8	13,3	4,0	13,4	3,0	1,5
Percentage of people in households with primary level of education (completed and not completed) (%)							
2005	22,7	19,4	7,2	31,8	9,4	34,9	38,1
2015	17,9	17,3	8,1	24,3	10,0	25,7	30,8
Change 2015/2005 (in p.p.)	-4,8	-2,1	0,9	-7,5	0,6	-9,2	-7,3
Percentage of employed people in households (%)							
2005	34,7	43,0	52,1	47,4	47,2	10,2	12,1
2015	40,4	49,7	57,9	53,6	52,0	8,5	9,6
Change 2015/2005 (in p.p.)	5,7	6,7	5,8	6,2	4,8	-1,7	-2,5
Percentage of people living on social security benefits in households (%)							
2005	22,4	6,3	7,9	13,1	4,8	69,7	56,8
2015	24,7	7,5	6,9	14,4	5,2	78,3	67,6
Change 2015/2005 (in p.p.)	2,3	1,2	-1,0	1,3	0,4	8,6	10,8

Percentage of dependents people in households (%)							
2005	35,2	45,0	35,6	37,4	44,6	15,9	24,5
2015	28,4	37,1	31,1	29,9	39,9	10,0	16,2
Change 2015/2005 (in p.p.)	-6,8	-7,9	-4,5	-7,5	-4,7	-5,9	-8,3
Level of nominal disposable income in PLN/person /month							
2005	761,5	565,8	1062,8	606,2	977,1	883,8	621,8
2015	1386,2	1081	1761,4	1046,2	1739,5	1059,5	1140,1
Rate of change 2015/2005 (2005=100%)	182,0	191,1	165,7	172,6	178,0	119,9	183,4

Source: Own calculations based on data from CSO of Poland (Household budgets in 2005 and 2015).

Changes in the functioning of households, as well as the transformation of socio-economic situation of the country (including the Polish accession to the EU) were important determinants of changes in the income situation of households. In the analyzed period there was a large increase in the average nominal income by more than 75%. Given the division of households into six basic socio-economic groups of the population, the highest income level in Poland tend to household of non-manual labour positions (1 761.4 PLN/month/per capita), and the self-employed (1 739.5 PLN/month/per capita), which is about one-quarter higher in relation to the income of the average household in Poland. In turn, the lowest income, representing only three-quarters of the average income, are reaching the farmers' households, pensioners and employees as well as employees in manual labour positions (table 5.2).

#### **5.4. The differentiation of households' savings rate in the system of socio-economic groups of population and quintile groups**

Between the two examined years, the structure of income concentration in considered income groups has not changed considerably. Another income group accumulated approximately 7%, 13%, 17%, 22% and 40% of total household income in 2005 and 2015 (table 5.3). In 2015, in relation to 2005, we observed a slight increase in the concentration of income in all quintile groups of households with the exception of the 5th group - the most affluent households. The improvement of the income situation of households in 2005 compared to 2015 may have been due to the good economic situation in the country. In the analyzed period, the concentration of income in the household groups distinguished on the basis of the main source of household's income has changed. Between 2005 and 2015 the share of household income of employees in manual and non-manual labour positions increased by 2.9 p.p. and 4.3 p.p. and in households of self-employed - by about 1 p.p. The shares of household income of farmers, retirees, pensioners and sustained non-profit sources have fallen (by 1 p.p., 1.3, p.p. 3.9 p.p and 2.1 p.p. p.p). The relative increase in the purchasing power of employees and the self-employed can have a significant impact on the savings rate, because this group has a high propensity to save (Kozera et al. 2016, (Loayza et al. 2000). In the analyzed period, the savings rate for all households has almost doubled - from 9.8% in 2005 to 18.8% in 2015. At the same time it should be noted that in 2005-2010 savings rate has increased by 7.3 p.p., and in 2010-2015 only by 4.6 p.p. The largest increase in the savings rate in 2015, compared to 2005, was observed in the households of farmers - by 14.7 p.p. and the lowest - in households living on unearned income sources – by 3.3 p.p. (table 5.3). The reasons for such significant

increase in the savings rate can be seen in the improved income situation of households in the period of economic prosperity, ie. in 2005-2010, while during the economic slowdown, increase in the savings rate may be affected by the decline in consumer optimism, associated with the inhibition of further economic development of the country and the household, which implied the need to collect savings (Fatuła 2002). It may also be suspected that the lagging consumption by increasing revenues in 2005-2010 resulted from a certain conservatism patterns of consumption, which is consistent with the theory of permanent income (Rószkiewicz 2008).

Analyzing the savings rate in the income groups it may be noted that in each of the examined years, the savings rate increased by about 5 p.p. at the transition between the second and third and between the third and fourth quintile group, while about 10 p.p. between the fourth and fifth income group. This confirms the hypothesis of Keynes about the disproportionate consumption (Bańbuła 2006). While analyzing the savings rate in the socio-economic groups of the population it can be seen that the highest level characterized the farmers' households amounting to 33% in 2015 and 18.3% in 2005 (Tab. 5.3). This is due to specific way of functioning of farmers' households, consisting of linking household to a farm and penetrating the sphere of consumption and production. The research, conducted in the framework of the Social Diagnosis, shows that farmers' households, declaring savings in 2013, gathered mainly to random situations (65.1%), current consumer expenses (50.5%) and relatively most often to fixed fees (21.9%). Savings, collected by the farmers' households as a reserve for current consumer expenses and fixed charges, prove undoubtedly of the high uncertainty of the families' income level generated in the future and about the need to collect savings in order to meet current and basic needs of its members (Kozera et al. 2014).

Table 5.3 The rates of savings and their shares in total income by socio-economic group and quintile group of income (%)

Group of income	Households							
	Savings rate (%)							
	of employees in manual labour positions	of employees in non-manual labour positions	of farmers	of the self-employed	of retirees	of pensioners	of living on unearned income sources	Total
2005								
I	-10,7	-42,5	-121,3	-37,5	-17,8	-14,5	-22,1	-26,8
II	5,6	-6,3	-2,2	-5,0	1,0	0,1	2,1	1,5
III	9,2	0,9	14,6	3,3	5,6	7,0	3,2	6,2
IV	16,1	5,2	22,6	6,4	10,5	7,0	8,4	10,5
V	23,3	17,4	51,5	17,1	13,3	15,5	14,4	19,7
Total	10,6	11,5	18,3	11,0	8,2	2,8	-0,9	9,8
2010								
I	-3,6	-21,6	-109,9	-23,2	-8,3	-9,7	-22,0	-17,1
II	12,3	2,4	4,1	1,5	7,0	5,6	-2,2	7,6
III	17,0	8,0	16,9	9,5	11,4	9,7	3,8	12,5
IV	22,7	13,6	33,8	14,3	16,2	19,0	8,7	17,6
V	30,0	25,3	62,8	24,3	22,0	21,4	40,3	28,3
Total	17,4	19,1	29,7	17,8	12,8	6,5	6,2	17,1
2015								
I	0,1	-52,3	-102,3	-23,4	-1,9	-4,7	-16,5	-16,4
II	16,6	4,0	14,9	8,0	12,9	10,9	5,2	12,4
III	21,8	15,3	22,0	16,3	17,8	15,5	8,8	18,3
IV	27,1	20,4	33,4	18,0	23,0	19,2	14,0	23,0
V	34,6	29,7	70,0	32,7	26,2	22,6	30,5	33,0
Total	22,1	22,7	33,0	24,6	19,1	10,6	4,2	21,7

Group of income	Households							
	Share of income of subgroup in total income of households (%)							
	of employees in manual labour positions	of employees in non-manual labour positions	of farmers	of the self-employed	of retirees	of pensioners	of living on unearned income sources	Total
	2005							
I	2,6	0,4	0,6	0,3	0,9	1,2	1,2	7,1
II	4,6	1,3	0,6	0,5	2,5	1,8	1,0	12,4
III	5,3	2,9	0,7	0,9	4,6	1,7	0,8	16,9
IV	5,6	5,7	1,0	1,6	6,4	1,6	0,6	22,5
V	4,3	19,0	3,1	5,7	7,2	0,9	0,8	41,1
Total	22,4	29,3	6,0	9,0	21,7	7,2	4,5	100,0
	2010							
I	3,0	0,6	0,6	0,3	1,6	0,9	0,7	7,7
II	4,9	1,6	0,6	0,6	3,6	1,0	0,4	12,8
III	5,9	3,5	0,6	1,3	4,5	0,8	0,3	16,9
IV	6,2	7,2	0,8	2,0	5,1	0,6	0,3	22,1
V	4,6	20,8	3,0	6,3	4,8	0,4	0,7	40,5
Total	24,6	33,7	5,5	10,5	19,5	3,6	2,5	100,0
	2015							
I	2,9	0,7	0,6	0,3	1,5	0,8	0,8	7,6
II	5,1	1,9	0,6	0,7	3,4	0,8	0,5	13,2
III	5,8	3,9	0,6	1,2	4,8	0,8	0,4	17,5
IV	6,3	7,4	0,7	1,8	5,5	0,5	0,3	22,6
V	5,0	19,6	2,6	6,0	5,2	0,3	0,4	39,2
Total	25,3	33,6	5,0	10,0	20,4	3,3	2,4	100,0

Source: own study based on unpublished data from individual household budget survey conducted by the CSO in Poland for the years 2005, 2010, 2015.

Table 5.4 Percentage of households assessing their financial situation as good or very good (%)

Group of income	Households							
	of employees in manual labour positions	of employees in non-manual labour positions	of farmers	of the self-employed	of retirees	of pensioners	of living on unearned income sources	Total
2005								
I	2,0	4,8	7,4	5,9	3,5	0,9	2,2	2,9
II	3,3	3,7	6,9	12,6	2,4	2,2	4,5	3,5
III	7,1	8,3	14,6	18,4	6,3	5,3	6,0	7,4
IV	11,6	18,1	16,3	29,7	13,7	11,6	19,1	15,3
V	28,2	46,3	28,5	53,3	36,9	35,9	40,1	41,6
Total	8,2	28,3	13,8	33,6	13,5	6,5	8,1	15,2
2010								
I	4,1	10,5	15,2	18,5	4,2	2,3	4,3	5,7
II	8,3	10,8	13,8	21,4	5,6	5,2	12,4	8,1
III	14,8	18,1	16,2	31,1	13,2	11,5	18,0	15,7
IV	25,1	34,5	28,4	47,5	30,1	28,1	40,3	31,6
V	47,0	64,1	39,6	69,7	60,4	60,8	39,0	60,7
Total	16,4	42,2	22,0	48,1	19,1	10,4	13,2	25,3
2015								
I	7,2	14,0	15,1	27,4	3,9	2,7	4,1	7,4
II	11,1	15,8	16,1	28,8	7,0	4,8	15,1	10,9
III	18,4	26,6	28,0	38,4	17,1	14,8	27,3	21,0
IV	30,6	37,6	24,7	47,9	34,2	31,9	31,1	35,0
V	51,0	66,3	38,6	73,3	63,9	61,9	55,9	63,5
Total	20,5	44,2	22,3	52,4	22,8	11,5	14,1	28,5

Source: own study based on unpublished data from individual household budget survey conducted by the CSO in Poland for the years 2005, 2010, 2015.

The situation of households can be understood as the financial situation, which takes into account wealth asset. The financial situation

of households is being affected, besides of property resources, ie. income and expenses, also durable goods, ownership and condition of the property, and other material resources. Crucial importance pays also the degree of satisfaction of households and satisfaction with the goods possessed by them.

Its material situation as best found households of the self-employed and of employees in non-manual labour positions, which were characterized by the highest level of incomes, compared to other socio-economic groups. In 2015, almost 53% of households of self-employed and 45% households of employees in non-manual labour positions felt their financial situation as good or very good and it was respectively 19 p.p. and 16 p.p. more than in 2005. On the other hand, the smallest share of households, assessing their financial situation as good or very good, characterized households of pensioners. Only less than 11.5% of pensioners in 2015 assess their financial situation as very good and had no problems with his household budget. In all groups of households an improvement in the perception of their financial situation in 2015 has been noticed, compared to 2005 (table 5.4).

The shaping of households' income level had an impact on the assessment of their financial situation. In households of all socio-economic groups can be observed that with the increase in disposable income, increased percentage of defining their own financial situation as very good.

In 2015, the top income group share of households assessing their financial situation as good at least among households of pensioners was 2.7%, and among households of the self-employed: 27.4%. However, in the fifth income group, the percentage was 73.3% among households of the self-employed and 38.6% among households of farmers (table 5.4). The observed differences present in each of relevant years. It can be assumed that the relatively poor self-esteem

of wealthier farmers' households was associated with the conviction of uncertain household income. In such situation, precautionary motive leads to increased savings as a buffer against future income shocks. There is also another factor, which may further explain this phenomenon, namely the differences in consumption patterns.

### **5.5. Concluding remarks**

Studies have confirmed that the households' income is an important determinant of saving rates in Poland. In each of considered years, the savings rate increased by about 5 p.p. at the transition between the second and third and between the third and fourth quintile group, while by about 10 p.p. between the fourth and fifth income group. This confirms the hypothesis of Keynesian disproportionate consumption.

There was also a wide variation in the savings behavior of different socio-economic groups. Aspects such as the type of employment or being a pensioner as well as living on unearned income sources, have a large influence on the possibilities of economizing some spare money, thus saving opportunities. The highest savings rate characterized the farmers' households. Savings collected by the farmers' households prove undoubtedly the high uncertainty of the families' level of income generated in the future and about the need to possess savings in order to meet current and basic needs of its members. In the examined period, relatively high savings rate marked the wealthiest households, ie. employees in non-manual labour positions and the self-employed, whereas the lowest savings rate characterized the households living on unearned sources.

Household savings play an important role in the economy, creating conditions for a steady economic growth. They are a basic and cheap source of capital accumulation in the economy. Increasing the

savings rate of households in Poland requires searching for new, innovative solutions that will create conditions for financial institutions to offer attractive saving instruments to households. It is also necessary to conduct educational activities for households indicating the advantages of saving, especially long-term savings.

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## **CHAPTER 6**

### ***The Impact of Celebrity Endorsement toward Brand Image with Special Reference to Men's Wear Apparel in Sri Lanka***

#### **6.1. Introduction**

Celebrity endorsement in advertisement, public relations, events and its impact on the overall brand building & brand equity as well as ultimately its influence towards the consumer purchase intension is with great connotation. In this process, companies employ celebrities, superstars from a particular field to feature in their advertisements and promotional campaigns or even in public events too. The promotional features and images of the product need to be matched with the celebrity image, which tends to convince a consumer to quick fix up his choice from a multifaceted range of brands. In a chaotic market place, a celebrity can grab the curiosity of a busy shopper than other approaches because of his or her special trait called “stopping power”.

Simply a firm employs a person who is generally recognizable, famous or well known by the public to promote its product or service. According to Schiffman L.G and Kanuk L.L (1995) these promotional roles differ as follows,

- **Testimonials** – If the celebrity has personally used the product or service as in a position to attest its quality, he or she may give a testimonial citing its benefits
- **Endorsement** – Celebrities are often asked to lend their names to ads for products or service with which they may or not be experts.
- **Actor** – A celebrity may be asked to present a product or service as a part of a character enactment, rather than as a personal testimonial or endorsement.
- **Spokesperson** – A celebrity represents a brand or a company over an extended period of time. Often in print and television ads, and in personal appearances, is usually called a company spokesperson.

When considering men's wear classification, there will be a bulky range of men's clothing in apparel industry. However men's wear apparel can be broadly defined into three categories, namely Casual wear, formal wear and under wear. There are number of brands which are well proven in Sri Lankan men's wear category over the past 10 years. Those are Emerald, Le Bond, Dee-dat and Signature. In supplement to these local brands, there are also well-established and known brands such as Crocodile, Tommy Hilfiger, Polo, CK, GAP, Armani and Levi's.

### **Objective of the Study**

The researcher's **main objective of this study is to examine their relationship between celebrity endorsements and brand image of those men's wear apparel brands/products and to measure the impact of celebrity endorsement on brand image.** Further there are certain associated sub objectives of this study as follows,

- To find out associated factors that contribute to the success or failure of the endorsement brands with effect to men's wear apparels.
- To measure the impact of demographic factors (Age) on the relationship between celebrity endorsement and the brand image.
- To investigate the prominent attribute in celebrity endorsement which affects on brand image in men's wear apparel brands.
- To find out how far celebrity endorsement helps to build the brand image of the target audience.
- To recommend marketers the strategies to be followed in the event of selecting celebrities for their advertisements.

## **6.2. Literature review**

Concurring to the global definitions, men's wear is the fragment, which manufactures all varieties of products used by men for either the wardrobe purposes or fashion purposes. "Clothes for men or a part of a large shop where you find men's clothing." (Cambridge Dictionary) and to narrow down this research, researcher has only engrossed the formal men's wear apparel produces. "Clothes for men or a part of a large shop where you find men's clothing" (Cambridge Dictionary).

Friedman and Friedman state, "a celebrity endorser is an individual who is known to the public for his or her achievement (in sports, music, racing, films) in areas others than of the product class endorsed" (Friedman & Friedman, 1979, page 63). According Oxford dictionary, endorsement can be defined as, "Endorsements are a form of advertising that uses famous personalities or celebrities who command a high degree of recognition, trust, respect or awareness amongst the people."

McCracken (1989) has specified the celebrity endorsement as “Any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement.” Celebrity endorsements are the most extensively used strategy in profile-raising tools. These testimonials can have celebrities giving expert opinions, being a spokesperson for a product, or just being associated with a product (McCracken 1989; Seno and Lukas 2007). Types of endorsements “can be explicit (‘I endorse this product’), implicit (‘I use this product’), imperative (‘You should use this product’), or co-presentational (Merely appearing with the product)” (Seno and Lukas 2007, p. 123).

The implied fondness is the supposition that if consumers already like the exertion that the celebrity does (film, television, sports, etc.), then these consumers will also adore the products those the celebrity likes. Irrevocably, as some celebrities are considered “cool”, the endorsed produce in turn, should be “cool” and form a competitive advantage through credibility. This competitive advantage is shown in a study comparing celebrities, “experts” and “typical consumers” in advertisements; “the celebrity endorser was most effective in sustaining brand-name recall and recall of the advertisement” in print advertisements (Friedman and Friedman 1979, p. 70). Interestingly, it is not a requirement for a celebrity to endorse a product where there is associative relevance with the celebrity (Speck, Schumann, and Thompson 1988). For example, an automobile company will not necessarily achieve higher success from its celebrity endorsement by using a celebrity racecar driver instead of a celebrity non-racecar driver.

Besides, celebrities do not need to be contemplated experts or have expert testimonials in endorsing a product (Speck et al. 1988). However, “endorsement effectiveness can be strongly influenced by consumers’ inferences concerning whether the endorser truly likes the

product” (Silvera and Austad 2003). Therefore, companies should produce advertisements with a “believability” factor at the forefront while employing a celebrity who likes and uses the product.

Agrawal and Kamakura (1995) examine 110 celebrity endorsements announced between 1980 and 1992. The authors find evidence of a positive impact: they report a (statistically significant) 0.44% abnormal return on the declaration date, and a 0.54% abnormal return over a two-day event period. In a small-sample study involving only three brands that announced an endorsement deal with golfer Tiger Woods some time prior to 1996, Farrell et al. (2000) document positive one-day and two-day abnormal returns for two of the three brands.

However apart from the above findings, Cyber media research study published in ‘business world’ unearthed different truths about celebrity endorsement. The study spread over 3 phases in different cities of India (Delhi, Mumbai, Chennai, Kolkata, Nasik, Coimbatore, Meerut) 12 focus group interviews, 6 expert instruments and 8 expert interviews with ad agencies were conducted. Besides this survey of 480 respondent in 4 cities and 3375 respondent in 8 cities helped to ripen different insights on celebrity endorsements that are given as under:

- Over 80% of the people reminisced the celebrity but forget about the brand.
- Different stars appealed to different geographic groups of customers (e.g. Aishwarya Rai had highest recall in down south as against Shah Rukh Khan who had little appeal there.)
- Research emphasized that ads without celebrity had a good chance of working as one with them. For instance, Hutch ad did better jobs of erecting a brand than coke, which had many immense celebrity names associated with it.

Another research originated that a celebrity endorsement in the

United Kingdom is, “one of the least trusted means of conveying product information, only faring better than door- drooped leaflets” (Datamonitor 2006). Further research should be performed to confirm or deny these findings.

According to the findings of ‘license’ in 2007 about actual purchases, because of celebrity tie-ins, 40% of retailers believed that consumers would buy the products because of the celebrity association. In contrast to this, only 5% of consumers actually stated that they would purchase the products. This analysis repeats the results of another assignment that found that a celebrity endorsement in the United Kingdom is “one of the least trusted means of conveying product information, only faring better than door-drooped leaflets” (Datamonitor 2006).

### **6.2.1. Evolution of Celebrity Endorsement**

Since the nineteenth century, the celebrity endorsement stratagem has been widely used by retailers and conglomerates. FaizKasi has defined a celebrity as someone ‘who is recognized by the public for his or her outstanding attributes, such as a unique skill and lifestyle, which separates them from the rest of the public.’ Meanwhile, Kasi also defines endorsements as a brand communication channel, whereby the celebrity acts as a brand spokesperson and thickens the brand by “extending his popularity, personality, stature in the society, or expertise in the field”.

The cigarette industry signed on entertainment personalities like comedians fatty Arbuckle and Harries Bulger when Murad cigarettes used them in its ads in 1905. Later cigarette brand endorsers were Henry Fonda, jack benny, Ethel Barrymore and Fred Astaire. Kodas cigarettes began including baseball cards in their packs of cigars. These baseball cards were intended to give away as gifts to loyal

customers. People soon started buying the cigarettes for the cards and endorsements caught on fast with marketers.

### **6.2.2. Contemporary position of Celebrity Endorsement in universal terms**

Due to the globalization concept, the celebrity endorsement strategy has spread out all over the world and which has become a conjoint phenomenon in each and every product or service industry. Now the situation is more different and multifaceted than ever before. Today the celebrity endorsement in the United States subsidize to about 20% of television infomercials while retailers and other companies spend about 10% towards advertisements featuring celebrities (Choi & Berger, 2009).

Certain celebrities (most Bollywoods) have commenced their own fashion brands. And they endorse themselves in the adverts, where they construct use of their own brand image. Male celebrities like Salman Khan has come up with his own fashion retails for menswear such as Splash, Mango, Banana republic and these outlets can be seen in all over the world.

### **6.2.3. Celebrity Endorsement revolution in Sri Lanka**

In the Sri Lankan context, the celebrity endorsement can be expounded, as a million rupees business that has not ripened yet though and still looks healthy. As Sri Lanka was operating in a inaccessible economy before 38 years back, the celebrity endorsement strategy had been introduced to Sri Lanka very lately. This industry came into the mass media alone with the championship of the world cricket trophy in 1996. Simple buying and selling organisms were practiced inside the Sri Lanka before 1977. We used to have our

own agronomic environment.

Now the latest tendency in Sri Lanka is as same as the global. With the international and local competition Sri Lankan marketers are following global trends. And with the admittance of so many multinational brands in Sri Lanka the indigenous suppliers also have introduced the newest trend of celebrity endorsement. According to media records and investigations done previously, famous cricketers were the first people who used as celebrities to endorse products. Because they had a public preference than other normal and anonymous people.

Subsequently, the cricketers were used in several ad campaigns mainly in fast food sector, telecommunication service providers and they also endorse in men's apparel wear segments for the brands such as "Signature" and 'Emerald". Specially the former captain of the Sri Lankan cricket team, Kumar Sangakkara (Sanga), the former vice captain Mahela Jayawardena and fast bowler Lasith malinge have endorsed most of the apparel adverts, published in Signature and Emerald brands

#### **6.2.4. The despondent edge of Celebrity Endorsement**

"They're humans. When you sign on to a celebrity, you sign on to the whole package: the good, the bad, and the ugly." (Conrad, 1995).

The negative publicity of the celebrity will greatly condense the brand equity of the product, since the companies do not control the celebrities' private lives, and this can be a hazardous situation for brands to come out of, especially fresher brands that are looking to stamp their mark (Bergstrom & Skarfstad, 2004; Busler, 2002; Erdogen 1999; Till & Shimp, 2009). There is also a risk of consumers being confused about certain brands due to the multiple endorsements from a single celebrity (Erdogen, 1999).

When considering the negative effects of celebrity endorsements and why is it risky to companies and consumers alike. There is the “vampire effect”, which is the effect of a celebrity overshadowing the brand (Jain, 2008,Kazi). This can cause a breakdown in the effective communication of a product being advertised towards the consumer simply because consumers are more attracted with celebrities, due to the fact that When a celebrity becomes involved in an unfavorable incident, the consumers’ insights of the personality may or may not change.

### **6.2.5. The Meaning Transfer Model**

During a celebrity endorsement, there will be an “association transfer” (De Mooij 2005) or a “meaning transfer” (McCracken 1989) through the direct relationship between the celebrity and the product. The relationship process is thought to allow the celebrity to “transfer” his/her perceived qualities to the actual product.

#### **Stage 1**

In the first stage of the model, the meanings of the celebrity reside within them-selves. The celebrity endorser delivers meanings as anonymous models do, but a celebrity is capable to do this with more depth and strength. They are the “owners” of their meanings, since they themselves created them in the eye of the public. This is further obvious with actors, due to the phenomenon of typecasting. Merriam-Webster online dictionary defines typecasting as repeatedly casting an actor in the same type of roles. When this occurs, the accumulated meanings of the actors turn them into effective endorses (McCracken, 1989).

#### **Stage 2**

In this stage the meaning is actually being transferred for the first time.

This transfer occurs when a celebrity is seen with a product in an advertisement. Here, some of the celebrities' meanings become the meaning of the product as well. Hence the choice of the right celebrity is of much important than everything, in order for the product to contain the appropriate meanings. Furthermore, the ad needs to be designed in a way that lets the consumer see the similarities between the celebrity and the product, which is consistent with the hypothesis of a match-up (Kamins, 1990), as mentioned earlier.

### Stage 3

In the third and last stage, the meaning transfers further to the consumer. The reason why celebrities contribute to this stage effectively is that in the first stage of the model they accomplished what the consumers now are trying to do. As a celebrity becomes an endorser, they make their meanings available in physical form for the consumer, and from this consumers try to build their own self. In other words, celebrities are able to provide the actual thing that would help them to succeed with this action (McCracken, 1989).

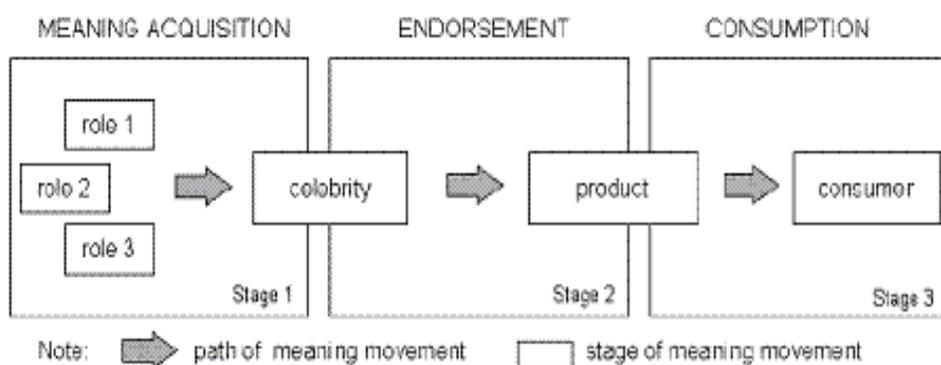


Figure 6.1 Celebrity Meaning Transfer Model

Source: McCracken (1989)

### **6.2.6. Celebrity Endorsement Attributes**

Celebrity endorsement will be further explored with the use of several determinants. Also provides the resolution on the factors or the attributes should exist with a celeb in order to match the product or identify as an effective endorser.

#### **Celebrity Credibility**

Credibility is “the extent to which the recipient sees the source as having relevant knowledge, skills, or experience and trusts the source to give unbiased, objective information” (Belch & Belch, 1994, page 189).

#### **Celebrity Attractiveness**

The concept of attractiveness does not only entail the physical attractiveness. Attractiveness also entails concepts such as intellectual skills, personality properties, way of living, athletic performances and skills of endorsers. Erdogan (1999).

#### **Celebrity Expertness**

Expertise of celebrity endorsement is being defined as the extent to which an endorser is perceived to be a source of valid assertions by Erdogan (1999). With regard to expertise, it isn't important that the celebrity is really an expert in the field. It is important that consumers think and believe a celebrity has expertise, said by Ohanian (1990).

### **6.2.7. Brand & The Brand Image**

Though these two concepts look parallel one to the other, the definitions are distinctive to that of the other. Due to the fact that, the researcher has conveyed this in to discussion in order to simplify the definitions.

## **The Brand**

“A category of products that are all made by a particular company and all have a particular name”- Mariam Webster Dictionary.

A brand is defined as a "name, term, sign symbol (or a combination of these) that identifies the maker or seller of the product" Kotler, P. (2014). Principles of Marketing.

## **The Brand Image**

Brand image is the current view of the customers about a brand. It can be defined as a unique bundle of associations within the minds of target customers. It signifies what the brand presently stands for. It is a set of beliefs held about a specific brand. In short, it is nothing but the consumers' perception about the product.

### **6.2.8. Attributes of Brand Image**

The 'brand image' is a term, which has a very comprehensive meaning. Brand image consists of different variables. These variables also can be mentioned as attributes of the brand image of which the brand image is erected upon these factors.

## **Brand Associations**

Brand association can help consumers' process and recall information, serve as the basis of dissimilarity and extensions and provide a reason to purchase and create positive feelings toward the brand (Aaker, 1991).

## **Brand Awareness**

Brand Awareness can be defined as consumers' recall power and ability to recognize the brand at any given time. This can also be explained as one's ability to identify the brand among number of competitor brands kept together.

### **Brand Personality**

The brand personality plays a wider role in the process of creating brand image. Based on the total impact towards one's personality of using such a brand, the purchasing decisions will be made.

A well-established brand personality can help leverage a set of unique and favorable brand images and thus enhance the value of brand equity (Aaker, 1991; Keller, 1993; Aaker, 1996).

### **Brand Innovativeness**

Brand innovativeness is defined by Ouellet (2006) as “consumers’ perceptions about a brand’s tendency to engage in and support new ideas, novelty, experimentation, and creative processes. Brand innovativeness involving perception by consumers, it should translate into the introduction of innovative new products or services and/or other actions such as innovative advertising, business models, distribution channels, and the like that are perceptible by consumers.”

### **6.3. Research model**

In conceptualization of the study the researcher has attempted to build relationship between the two key variables, celebrity endorsement (independent variable) and brand image (dependent variable).

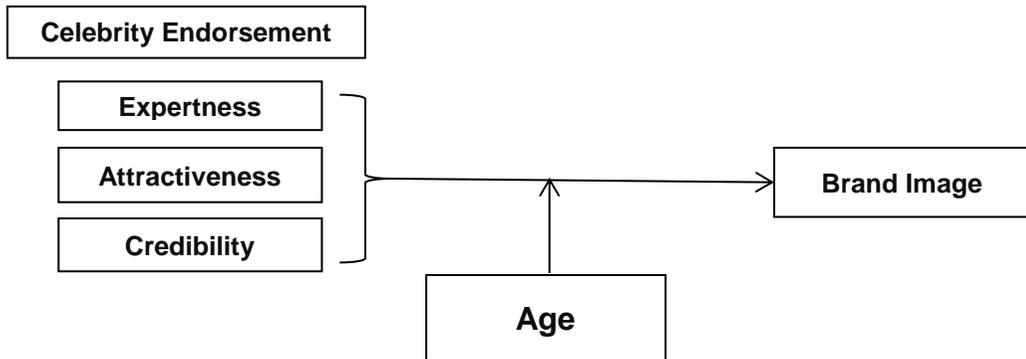


Figure 6.2: Conceptual model

### 6.3.1. Formulation of Hypotheses

- Hypothesis number one - There is a significant and positive relationship between celebrity expertness and brand image of men's wear formal apparel products.
- Hypothesis number two - There is a significant and positive relationship between celebrity attractiveness and brand image of men's wear formal apparel products.
- Hypothesis number three - There is a significant and positive relationship between celebrity trustworthiness and brand image of men's wear formal apparel products.
- Hypothesis number four - There is a significant and positive relationship between celebrity endorsement and brand image of men's wear formal apparel products.
- Hypothesis number five - The occupation is highly influenced on the relationship between the impacts of celebrity endorsements towards the brand image of men's wear formal apparel products.

### 6.3.2. Operationalization of Attributes

Table 6.1: Operationalization of Attributes

Attribute	Indicator	Measurement Criteria
Celebrity Expertness	01. Knowledge	Consumers’ attitude whether the celebrity has sound theoretical or practical knowledge on his or her specialized area.
	02. Experience	Whether the celebrity has sufficient experience in his or her field or area
	03. Training	Consumers attitude whether the celebrity has obtained a practical training relevant to his or her field.
	04. Know how	Consumers attitude whether the celebrity is technically sound in his or her field
	05. Skill	Consumer’s attitude whether the celebrity can use his or her knowledge effectively in its specialized area.
	06. Authority	Consumer’s attitude whether the celebrity has power to influence other action or behavior
Celebrity Attractiveness	01. Personality	Consumer’s attitude about celebrity’s personality
	02. Attention	Consumer’s attitude of whether the celebrity can gain attention of the consumers
	03. Appearance	Consumer’s attitude of the celebrity’s external outlook.

	04. Affection	Whether celebrity can influence the consumer's emotions
	05. Interest	Whether consumer's likelihood attitude towards the celebrity
	06. Desire	Consumer's attitude of whether he or she prefers the celebrity.
Celebrity Trustworthiness	01. Credibility	Consumer's attitude about credibility of the celebrity
	02. Sincerity	Consumer's attitude on the sincerity of the celebrity
	03. Honest	Consumer's attitude of whether the celebrity is honest
	04. Loyalty	Consumer's attitude of whether celebrity is loyal
	05. Believability	Consumer's attitude of whether celebrity is believable
	06. Ethical	Consumer's attitude about the ethicalness of celebrity
Brand Image	01. Associations	The symbols, activities and persons brand associated with
	02. Awareness	Consumers' recall power and ability to recognize the brand any given time.
	03. Personality	Consumers' perception and attitude on the behavior & characteristics of the brand.
	04. Innovativeness	The frequent, which new products, new features, new varieties being put out to the market.

### **6.3.3. Methodological choice**

After preliminaries of data, the researcher ascertained that the survey method was the best to collect information for the study. This is a conclusive research in nature. Under conclusive research, again this research can be identified as a descriptive research. The reason to select this design is that, this study is conducting to take a superior conclusion of a specific problem, which is highly affected on a particular party.

Hence the research approach used was a “deductive approach”. A deductive method refers to the use of logic of a theory to generate prepositions or hypothesis that can be tested. It also provides the need to explain the causal relationship between variables and also required the collection of quantitative data as well. Also, this research process is structured and formal.

This study is not going to be done continuously and only one pointing time is used. So, the method used here is cross sectional analysis. As it is using only single sample to collect data, this is also called single cross sectional analysis method.

### **6.3.4. Collection of Data**

Secondary data was needed for the analysis about celebrities, their behavior and sample for the survey. For this, researcher utilized On-line journals and text books, The theories & models from literatures such as “meaning transfer model” by Mc Cracken (1989), “Celebrity Endorsements And Its Impact” by Wilson Edzorna Dzisah1 Chosniel Elikem (2012), Former researches regarding the impact of celebrity endorsement towards the consumer purchase intention and brand image on cosmetic products and FMCG brands, newspaper Articles, government statistical reports and company information.

This study fundamentally depends on the primary data. The researcher utilized the questionnaire method for collecting primary data. A questionnaire was designed to collect the information regarding the impact of celebrity endorsement on the brand image of apparel products on Sri Lankan context of the respondents. The researcher personally and with the help of field investigations, it was directed among 150 male respondents, with a letter clarifying the research objective.

### **6.3.5. Sample**

The identified target group of respondent is male consumers, who represent the academic designations, early working professions, trainees or permanently employed professionals and who exhibit a preference and tendency towards purchasing men's wear apparel products for their routing life.

The sample size of this survey was set at 150, as it believed to be managed and collected within time constraint. The selected sample was representing male consumers who are in the age group of 18 – 45 and who lived in Colombo (75 respondents) and Gampaha (75 respondents).

### **6.3.6. Reliability Test**

Since the data for this study was produced using scaled responses, it was necessary to test for reliability. Therefore the most popular method Cronbach's Alpha (R) Test of Reliability was applied In order to assess the internal consistent of each construct. The researcher used 25 respondents to do the pilot survey.

The results show that Cronbach's alpha value of variables of Brand Image, Celebrity Trustworthiness, Celebrity Attractiveness and the Celebrity Expertness as 0.784, 0.822, 0.743 and 0.885 respectively.

It indicates that the design of the questionnaire has a high internal consistence since all Cronbach's alpha coefficients are above 0.7.

### **6.3.7. Data Presentation and Analysis Method**

The process of editing, coding, classification, and tabulation of data are completely carried out using SPSS software and MS Excel package. The five points Likert scale was used to rest the most of the responses for questions while taking scores of 1, 2,3,4,5.

As descriptive statistical tools the researcher used Central Tendency measurements and frequency measurements such as Arithmetic Mean, Median, and Mode and also use the measures of dispersion like Standard Deviation, Variation and Range. As inferential statistical tools, the researcher used Pearson Correlation Technique in order to test the hypothesis and evaluate the relationship between brand image and celebrity endorsement.

## **6.4. Research findings and discussion**

The research revealed certain new findings with regard to men's wear fashion & clothing industry. Further it was able to successfully identify the trends & latest patterns of formal clothing.

### **New trends in the men's wear apparel industry**

This research revealed that there is a new trend in men's wear formal apparel products, in the preference of men's apparels out of shirts, trousers, ties and blazers, if a man given the choice to purchase any of these, the first choice was to buys a formal shirt and there is a high preference to purchase a tie as the second preference and then the trouser. The demand for ready-made trousers is very low, when compared to the demand of shirts & ties.

### **Most prominent celebrity attribute**

In Sri Lankan context, endorsing cricketers in product/service advertisements are quite popular. Even in men's wear products do so. However with this research it was unearthed that, people would like to spend above average rate for men's wear apparels, which have been endorsed by cricketers and the "celebrity attractiveness" (personality, appearance) is the most prominent factor out of all other celebrity attributes.

### **Negative impacts of using cricketers in men's wear advertisements**

Further it was also revealed that, seeing the cricketers in advertisements of multifaceted product range, has led the consumers to forget/confuse the brand name, but the action or the set of words said by the cricketers in the same advert.

### **The impact of age group to the relationship between celebrity endorsement & Brand Image**

The conceptual frame work of this research consisted of one moderating variable (age group) and a sub objective was stated to identify the impact of age group to the relationship between celebrity endorsement & brand image for men's wear apparel. This objective was tested as below.

According to the findings  $R^2$  value base models is 0.368, which means all explanatory variables explain the dependent variable by 37% without the moderating factor. However after considering the moderating factor contingency model was tested. New  $R^2$  value was reported as 0.375. This indicates that 38% of explanations of the independent variables to dependent variables with including moderating factor. In both the situations F values are significant at 0.01 levels. Further the change of the  $R^2$  was reported as 0.007 and it was significant at 0.05, which

means moderating variable of age group has significant impact on the relationship between celebrity endorsement and brand image. Therefore it is concluded that age group of the people become the determinant factor when people consider respective apparel products with the purpose of considering buying behavior of apparel products.

Table 6.2: Moderate variable analysis statistics

	Base Model				Contingency Model			
	t	Sig	B	Beta	t	Sig	B	Beta
Constant	4.244	0	1.505		4.1	0	1.459	
Expertness	0.842	0.401	0.087	0.069	0.359	0.72	0.039	0.031
Attractiveness	6.163	0	0.509	0.54	6.302	0	0.532	0.564
Trustworthiness	0.773	0.441	0.041	0.056	0.535	0.593	0.029	0.039
Age Group					1.263	0.209	0.044	0.089
R	.607a				.613a			
R square	0.368				0.375			
Adjusted R square	0.355				0.358			
F	28.395		.000 <sup>b</sup>		21.782		.000 <sup>b</sup>	
Change in R square	0,007							

Source: analyzed data 2015

### ***Testing the key Objective***

H1: The age group is highly influenced on the relationship between the impacts of celebrity endorsements towards the brand image of men's wear formal apparel products.

### **Correlation testing**

The researcher has taken all the independent variables as a single variable by computing expertness, attractiveness and trustworthiness in to one variable and tried to identify the significance of the relationship between the celebrity endorsement and brand image with special

reference to men’s formal apparels in Sri Lanka.

This is a positive relationship and at the same time this is a strong relationship. This is a positive strong relationship. But by looking at the significant level of the correlation between celebrity attractiveness and brand image of men’s wear formal apparel products,

Table 6.3: Celebrity Endorsement correlation statistics

**Correlations**

		Celebrity Endorsement	Brand Image
Celebrity Endorsement	Pearson Correlation	1	.741**
	Sig. (2-tailed)		.000
	N	150	150
Brand Image	Pearson Correlation	.741**	1
	Sig. (2-tailed)	.000	
	N	150	150

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: analyzed data 2015

Researcher can identify there is a significant level of relationship. And the significant level of two tailed analyses is 0.000; this indicates that the null hypothesis is rejected. (P<0.005) Due to the fact that, Hypothesis: “There is a significant and positive relationship between celebrity endorsement and brand image of men’s wear formal apparel products” is accepted.

**Regression testing**

The regression testing results between celebrity attractiveness and brand image are as follows,

Table 6.4: Celebrity endorsement & brand image regression analysis statistics

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741 <sup>a</sup>	.568	.355	.46077

Source: analyzed data 2015

Above table 6.4 is a summary of regression values on dependent variable of brand image and independent variable celebrity endorsement. R Square which indicates that the celebrity endorsement has .568 or 57% of variation on brand image and other 43% of variation in brand image are explained by other factors. This is a very good finding, where the entire independent variable, celebrity endorsement has an impact of 57%, in other words celebrity endorsement itself can make an impact more than 50% which means more than half of the percentage value, towards the brand image of men's wear formal apparel products.

## 6.5. Conclusion

This research was conducted to identify the impact of celebrity endorsement towards brand image with special reference to the formal apparel wear brands. Most of the local apparel branded product-manufacturing players apply different marketing strategies such as celebrity endorsement after spending large amount of money with the increasing the brand image and increase the sales. When looking at the formal apparel wear customer base in Sri Lanka, it shows that some customers show some brand loyalties towards particular apparel brands. But no one is actually clear about why these customers are that much brand seeking. But there are certain strategies other than

celebrity endorsement such as service quality, visual merchandizing and above the line advertising where the customers will be unconsciously influenced on their buying decisions and loyalty towards these brands.

These insights can be used by modern apparel manufacturers in order to make wise & competitive decisions in their holistic marketing & PR activities.

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## **CHAPTER 7**

### ***WOMEN IN CO-CREATION: COMPARATIVE STUDY BETWEEN POLAND AND SRI LANKA***

#### **7.1. Introduction**

Globalisation has led to a reduction in differences between customers in various parts of the world. This tendency is reinforced by the development of new information and communication technologies and Internet access. Regardless of these reasons, social and cultural aspects may play an important role in differentiating consumer behaviour. The question is whether there are any differences in the behaviour of young European and Asian female consumers if their openness to the co-creation process is taken into account. For this reason the authors of this article have conducted a research among members of Generation Y (Millennials) to answer the following question:

## **I. What is the difference between Poland and Sri Lanka Y-Generation Women in Co-creation process?**

The emphasis in this article is placed on the presentation of research results from two countries: Poland (European culture, HDI 0,843) and Sri Lanka (Asian culture, HDI 0,757). The target group of the survey was young women (Generation Y) which by virtue of their psycho-physical characteristics are more open to share their experience and engage in various activities.

The aim of this article is to present the differences of co-creation behaviors of Generation Y women in the two countries. Theoretical deliberations were devoted to the explanation of the characteristics of Generation Y women in the two countries and the concept of co-creation.

Empirical part has been devoted to the presentation of the results of the study carried out to compare the behaviours and perceptions of Y Generation women in the two countries in co-creation.

### **7.2. Co-creation**

Strong competition and high costs of attracting new customers make establishing customer relations one of the most important challenges of today's market. Also, an increasing number of managers recognise benefits which customer relations bring since attracting new customers is becoming more costly.

Conventional ways of attracting and retaining customers fail to work in new market conditions. It is therefore necessary to take advantage of modern forms of communication and cooperation with customers. The process of co-creation is an example of such a modern form. The process of co-creation involves undertaking activities in favour of the company which consist in taking advantage of customer's

knowledge and experience. Significant value of co-creation is customer's involvement in cooperation with the company (Rogoziński, 2012), but according to other opinions, value lies in that the customer creates the product for themselves (Ramaswamy, 2009). It is thus to be recognised that the customer is indispensable for this process to succeed, because it is the customer who brings in the new value and contributes to the process of co-creation (Fueller, 2009). Although the literature offers examples of how this process works in companies (Prahalad and Ramaswamy 2000; Ballantyne 2004; Jaworski and Kohli 2006; Payne, Storbacka, Frow 2008;), there is no sufficient information on how to carry out the co-creation process and what tools are necessary to have it implemented (Schare 2004, Payne, Storbacka, Frow 2008), and at the same time there is a growing interest in the co-creation process (Webster 2002).

Customer-company cooperation consists in customer's involvement in various stages of the creation process (Auh, 2003), but on the other hand, it gives the customer an opportunity to become familiar with what the company does. If a company wants to open up to customers' involvement, it needs to assume a new role and accept the fact that customers may require more information in order to create new values. Dialogue thus becomes essential for customer cooperation to succeed.

### **7.3. Co- Creation in Poland**

The popularity of co-creation phenomenon in Poland is growing rapidly in recent years, not only in regard to global brands but also to Polish ones. The most popular sectors are IT, mobile apps and food and drink. The popularity of the concept can be explored in cultural and cultural values perspectives of a country. Geert Hofstede's value topology is a base which can be used to explore a country's cultural

values. It consists of six dimensions including power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence (<https://geert-hofstede.com/poland.html>, 22.02.17).

Poland is a country where the individualism play a large role in building the relations between humane to humane or employee to employer. According the Geert Hofstede Raport (<https://geert-hofstede.com/poland.html> 15.02.17), Polish society has high individualism but also medium to high acceptance of hierarchical order. Polish society has very high preference for avoiding uncertainty and higher masculinity. But long term orientation is low. It's means that the people thinking is more normative.

The high score on power distance and high score on individualism means that relations are very sensitive but very intensive and successful.

Table 7.1 Poland Culture based on Hofstede's Value Topology

Individualism - High:	strong take care of themselves and their immediate families, management of individuals
Power Distance - Medium to High:	acceptance of hierarchical organization, dominate style of authority is: a benevolent autocrat
Uncertainty Avoidance – Very High:	rigid codes of belief and behaviour, intolerance of unorthodox behaviour and ideas, precision and punctuality are the norm
Masculinity - High:	people “live in order to work”, the emphasis is on equity, competition and performance
Long-Term Orientation – Low:	people respect traditions, a relatively small propensity to save for the future, and a focus on achieving quick results

Source: <https://geert-hofstede.com/poland.html> (15.02.17)

#### 7.4. Co-Creation in Sri Lanka

Within the Sri Lankan context, the literature on co-creation is mostly unavailable. However it is a country where the culture and cultural values play a large role in relationship orientation among people. According to the dimensions in Hofstede's Value Topology (table 7.2) for the country, Sri Lanka is a nation where collectivism is high and also it has a feminine culture which further illustrates that the island's inhabitants are relationship oriented. In collectivistic cultures individuals are fundamentally dependent on each other.

Table 7.2 Sri Lankan Culture based on Hofstede's Value Topology

Individualism - Low:	strong group affiliation, collective oriented, social conformity norms, strong relationships,
Power Distance - High:	hierarchical relationships and position of authority, control and forbearance
Uncertainty Avoidance - Medium to High:	formal structure and rational process, preference for job security
Masculinity - Low:	quality of life and people are important, work in order to live, relationship oriented, compromise and negotiation
Long-Term Orientation - Medium to High:	people value actions and attitudes that affect the future: persistence/perseverance thrift and shame.

Source: (Bolz, 2002), Waisfisz, 1992 cited in (Knoll, 2004), ([https://geert-hofstede.com/sri\\_lanka.html](https://geert-hofstede.com/sri_lanka.html), n.d.)

This makes it a lucrative market for marketers who complete with relationship orientation. Companies are practicing relationship marketing as a competitive strategy through various products and services. At the same time, as a developing nation with a per capita income of US\$ 3836 (Central Bank of Sri Lanka, 2016), Sri Lanka

attracts a larger number of business organisations making the market competitive. A content analysis of advertisements carried out in Sri Lanka (Fernando, 2010) revealed that Sri Lankan females are having a positive attitude toward advertisements with collectivistic values than males and they are usually seeking social ties with others and look for relationships. This is paving the way for companies to pay more attention on keeping long term relations with customers and partial co-creation is already visible through the social media platforms where customers share their suggestions for product modifications to ideas on new products & services.

### 7.5. Comparison of Polish and Sri Lankan Culture

Through the dimensions Hofstede’s Value Topology, the cultural differences between Poland and Sri Lanka can be clearly explained.

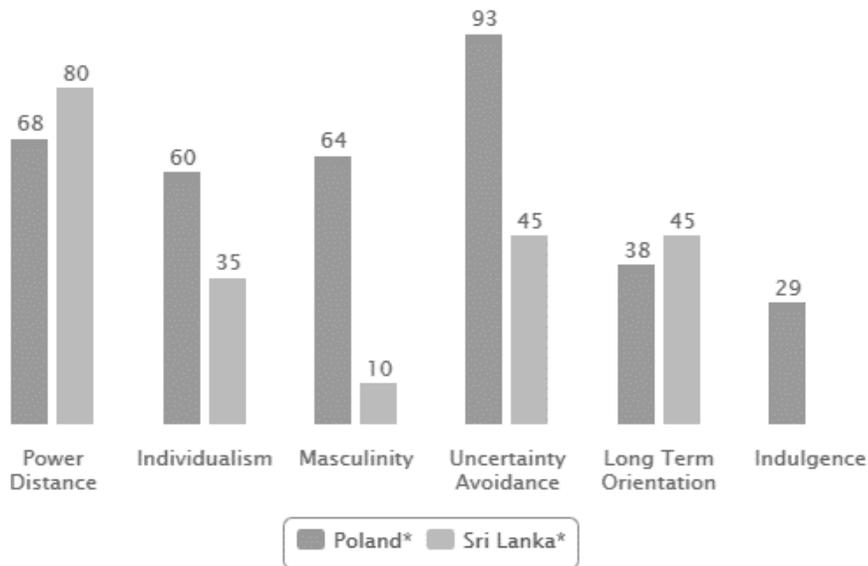


Figure 7.1: Cultural Differences in Poland and Sri Lanka

Source: <https://geert-hofstede.com/poland.html> (13.02.2017)

The Power Distance in Sri Lanka is high than Poland indicating that the Sri Lankans are expecting and accepting that power is distributed unequally within the country. Polish culture is individualistic whereas in Sri Lanka a more collectivist culture is evident. Polish society is driven by competition, achievement and success through its masculinity cultural dimension and Sri Lanka which is a feministic society, caring for others and quality of life is more visible. Poland scores 93 in Uncertainty Avoidance dimension compared to 45 in Sri Lanka and thus has a very high preference for avoiding uncertainty. Long-Term Orientation is mostly common among both countries which indicates that people maintain time-honoured traditions and norms while viewing societal change with suspicion (<https://geert-hofstede.com/poland.html>).

## **7.6. Y Generation Woman in Poland**

Generation Y is the generation of people born in the years 1980-2000. In the literature they are also called the WWW Generation, Net Generation, umb Generation. Members of Generation Y praise the following values: optimism, idealisation, variety, ambitions, creativity, initiative, innovation, education and training (Woszczyk, 2013). Members of Generation Y have various interests, they have always had access to social media like Facebook, smartphones, etc. (Flazlagic, 2008).

As regards professional expectations, members of Generation Y are focused on friendly work environment and latest technologies; they also expect their managers to establish close relations with them and to be provided with flat organisation (Ericsson Consumerlab, 2013).

Generation Y poses a new challenge for companies. On the one hand, members of Generation Y are the youngest employees on the market, but on the other hand, they become independent consumers.

Their attitudes and behaviour differ from those presented by earlier generations (baby boomers, Generation X, Generation Z). Companies find it difficult to follow impatient, adrenaline-seeking consumers who have varied interests and are open to novelties and innovations.

Therefore, observed values and behaviour of Generation Y favour the implementation of co-creation as a way of building relations.

Since research on behaviour of Generation Y which has been conducted so far has concentrated on general analyses of their behaviour, the authors of the article has found it interesting and decided to verify this behaviour among Generation Y female members.

Apart from all above-mentioned characteristics of Generation Y, Generation Y women consider their work as a tool to make a living (“I work to live”). They value themselves highly, get involved in tasks, but they are also willing to change their work if it does not bring benefits and satisfaction. Since Generation Y women are aware of their value and of equal professional and social opportunities, they think that a network of connections is essential to get promoted.

Generation Y women expect their leaders to play the role of mentors, to provide them with training, flexible conditions and performance-orientation. They are convinced that gender parity can be achieved (according to 100% Generation Y women) (Report by ManPowerGroup, 2016).

Generation Y women use modern technologies and IT tools in everyday life. They can quickly find completely new information, they are willing to work in teams and share their opinions online. They can easily carry out multiple tasks at the same time (Baran and Kłos, 2014).

Generation Y women can adapt to changes easily, but they tend to be impatient; they also feel very comfortable in a multicultural environment. Generation Y women are more innovative and better at

predicting the future than earlier generations (Raport Ericssona ConsumeLab, 2013).

As the customer, being the core of the co-creation process (Fueller, 2009), is open and willing to cooperate thus bringing in new value, significantly contributing to the creation of a new product and getting involved in the cooperation with the company (Rogozński, 2012) and wants to make products suited to them (Ramaswamy, 2009), it can be assumed that characteristics and values praised by Generation Y women favour the development of relations through co-creation.

It must be remembered that the process of co-creation requires activities aimed at intense customer-company interaction. Customer-employee dialogue is the basis for such cooperation (Gronroos and Voima, 2013). Customer's activity and involvement in the co-creation process are of great importance here, they must be voluntary (Fueller. a. oth. 2009).

### **7.7. Y - Generation Women in Sri Lanka**

Generation Y or "Millennial" is a term commonly used for the generation of people who were born during the two decades between the early 1980s and 2000s, the first generation to come of age in the new millennium (Dharmasiri, 2015). When analysing this segment closely, it is typically perceived as increasingly familiar with digital and electronic technology (Bhattacharya, 2016), having exposed to rapid advancement in information and communication technology during past decades (Dharmasiri, 2015). Generation Y expects to listen and to be listened to (Oracle.com, 2011).

Sri Lanka has 4.64 million young personnel between the ages of 15 to 29 years who comprises a total of 23.2 percent of the population by 2014 and the male and female ratio is almost the same (United Nations Development Programme Sri Lanka, 2014). These numbers

make them a vital target for businesses both as customers and prospective customers for products and services.

The National Youth Health Survey 2012/2013 (Family Health Bureau, Sri Lanka, 2015) revealed that within the age category of Y Generation, more women than men are advancing to higher education. However the labour force participation by females stood at 30 percent which signifies that it falls behind male counterparts' labour force participation value of 60 percent across all sectors (Ministry of Youth Affairs and Skills Development, 2014). The women workforce were at a higher educational level than their male counterparts (Department of Census and Statistics Sri Lanka, 2014). Unemployment issues appear to be most acute for young job seekers below twenty five years of age, while the worst hit happen to be women (Friedrich Ebert Stiftung, 2002). The percentage of young unemployed women is much higher than that of young men during this period (Department of Census and Statistics Sri Lanka, 2014).

According to Dharmasiri (2015), this category are also ecological conscious as well as they seek for flexible work arrangements. Also the women belong to this category are more overt in their behaviour and they pay attention to personal care demonstrating the urge to mimic the west (Liyanage, 2009). This sector demonstrates a fusion between the traditional and the modern impulses making them mod-tradi consumers who are following both tradition and modernisation in their overt life styles (Liyange, 2011) This specific life style makes youth more western oriented and they share their ideas and opinions more openly, which can be positive in co-creation process of business organisations.

## 7.8. Data Analysis

This section describes the research methodology and the data analysis. To compare the co-creation activities in the two countries a questionnaire based survey was conducted. The questionnaire was consisted of descriptive questions where respondents were expected to respond in a five point likert scale. The sample size was 200, where 100 respondents from each country were selected. Sample selection was done using multistage mixed sampling method. Two universities from each country was selected for the convenience and a simple random sample was selected from the female undergraduates of University of Kelaniya, Sri Lanka and University of Szczecin from Poland to represent the Y Generation of each country. Microsoft excel was used as the analysis tool and a preliminary data cleansing and a recheck was carried out to ensure there were no missing values. Pivot tables were constructed to compare the responses from the two countries. Tables are described based on the aggregate mean values for two countries. Findings of the survey are presented below.

Table below (table 7.3) shows the number of Y Generation females who have involved in co-creation.

Table 7.3 Number of Females Who Co-Create

Country	Number of Females
Poland	2%
Sri Lanka	7%

Source: own compilation

From the sample respondents, 7% of the Sri Lankan young women had involved in co-creation compared to the 2% rate in Poland.

Following table (table 7.4) presents the groups of products they get involved in co-creation:

Table 7.4 Types of groups of products of co-creation

Country	Poland	Sri Lanka
Food & Drink	0.75	2.25
IT	0.25	2.09
Shoes	0.75	3.55
Games	0.25	1.36
Mobile	0	2.70
Clothes	0.5	3.55
Domestic Appliances	0.25	2.09
Computers	0	2.70
Service	0	3.33
Books	0.25	2.60

Source: own compilation.

According to the above table Sri Lankan females show the highest co-creation for clothes, shoes and services. Whereas it is shoes and food & drink for Poland. Sri Lanka shows a high co-creation for services and it is not observed in Poland.

Table 7.5 Co-Creation types

Country	Poland	Sri Lanka
New Logo	0	0.25
Product Feature	0.5	1
Product Packing	0.5	0.75
Promotion Campaign	0	0.25
Service	0.5	0
Product function	0.25	0.5
Other	0	0
Price	0	0

Source: own compilation.

According to the table 7.5, both Polish and Sri Lankan Y Generation woman do not co-create in terms of price. Even though there is evidence that co-creation is happening in the services industry in Sri Lanka, there is no evidence that services are used as a mode of co-creation. Product features and product packing are among the most frequently used method of co-creation in both countries.

Table 7.6 Willingness to co-create again

Country	Co-create Again
Poland	8.33%
Sri Lanka	25.00%

Source: own compilation.

Considering about the selected sample while focusing to above Table 7.6, it's shown that 25% of the Sri Lankan Y Generation woman are willing to co-create again and about 8 % of the Polish Generation Y woman are willing to co-create again.

Table 7.7 Reasons to participate in co-creation

Country	Poland	Sri Lanka
Favourite Brand	3.5	2.58
Invitation to improve product usability	4.25	3.09
Prestige Attached to Cooperating with a Company	4	3.00
Invitation to Sample a new Product	4.25	2.73
Getting a Reward	4	3.27
Satisfaction	3.25	3.64
Chance to Generate Ideas for a Brand is Fantastic and Challenging	4	3.45

Source: own compilation.

By referring to the table above it is evident that almost all the factors listed above are ranked above average as reasons for co-

creation. Invitation to improve the product usability and invitation to sample a new product version motivates the Polish participants to involve in co-creation more and for Sri Lankan participants its satisfaction and chance to generate ideas for a brand is fantastic and challenging.

Table 7.8 Perception of Co-Creation with a Company

Country	Poland	Sri Lanka
	Mean value	Mean value
Play	3.75	3.00
Sharing Ideas with a Company	4.00	3.60
Appreciation by a Company	4.00	3.20
Satisfaction	3.25	3.70
Maintaining Relationship with Regular Clients	3.00	3.89

Source: own compilation.

According to the table 7.8, Polish participants get involved in co-creation with a company mostly for the appreciation by the company and for sharing ideas with a company. For Sri Lankans it is mostly for Satisfaction and sharing ideas with a company.

Limitations of the study includes the small sample size and not been able to identify the specific perceptions of the respondents due to the usage of a structured questionnaire.

## 7.9. Conclusion

Due to the sample size of this study the conclusion cannot be generalised to the whole two countries. Data imply that the participation in co-creation activities in both countries are low. Out of the participants who have got involved in any type of co-creation, there were no significant differences between the two countries. Anyhow the study

indicates that comparatively Polish Generation Y woman are less interested in cooperation with companies while the Sri Lankan Generation Y woman are much more positive to cooperate with companies. According to the authors' opinion about differences in interest of co-creation process can be illustrated as the Polish Generation Y woman have more exposure regarding co-creation and therefore it's not new for them. But the Sri Lankan scenario is very much new to the Y Generation women. Moreover, the study had shown some similarities as far as the acceptance of the invitation to co-creation is concerned. According to that both groups of respondents have accepted invitation to co-create cloths and shoes.

From the cultural perspectives of the two countries, the differences which are evident in the culture of Poland and Sri Lanka has not played a large role among the co-creation process within the Y Generation women in both countries. However the Sri Lankan young women are showing a majority interest in willingness to co-create compared to their counterparts in Poland. This indicates a positive co-creation readiness among Sri Lankan young women which can be attributed to their collectivistic culture.

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# WINNET

## CENTRE OF EXCELLENCE®

Winnet Centre of Excellence® (WCE®) is a platform created for the purpose of doing and promoting teaching, policy making and research on Gender, Innovation and Sustainable Development. WCE® operates through the international network of researchers from universities in Lithuania, Poland, Sweden, Finland, Sri Lanka, China, Georgia and Armenia. This initiative is possible thanks to the cooperation with the WINNET Sweden. Our activities were financed by the Swedish Institute under the project TP Winnet BSR (Thematic Partnership Winnet Baltic Sea Region, Winnet BSR, Swedish Institute: 2013 - 2016). WCE® has been established in November 2014 at the Faculty of Economics and Management, University of Szczecin by a decision of partners of the Thematic Partnership Winnet BSR. WCE® Coordinators are: dr Marta Hozer- Kocmiel and dr Sandra Misiak-Kwit, University of Szczecin.

The concept of the WCE® draws on a Winnet Model which combines theory and practice and is based on cooperation between public administration, policy and decision makers, business, non-governmental organizations and academia in order to improve social and economic situation of women at all levels (Quadruple Helix principle). So far, the Winnet model was implemented through Winnet Women's Resource Centers (WRCs), a non profit womens movement and institution created in Sweden in the nineties. The WRCs have contributed to increase women's participation on a broad and not segretated labor market, female entrepreneurship and innovation,

including in ICT sector, in crossborder co-operation and in rural development. Establishing the WCE® has strengthened Winnet organisations at local, regional, national and European levels providing support through policy oriented research and recommendations.

Joint projects implemented by members of the Winnet Center of Excellence®:

- Winnet Eastern Partnership (2016 – 2017), Swedish Institute Baltic Sea Cooperation. The main objective is the implementation of the Winnet Model in the EAP countries;
- Thematic Partnership Winnet Baltic Sea Region, Winnet BSR, Swedish Institute (2013 - 2016) - One of the aim is to create the BSR Partnership Platform for Gender, Innovation and Sustainable Development;
- Going abroad, South Baltic Programme (2011 - 2012) - Project aimed to strengthen the position of female entrepreneurs with micro-businesses;
- FEM - Female Entrepreneurs Meetings in the Baltic Sea Region, Baltic Sea Region Interreg III B (August 2004 - July 2007) - The aim of FEM was to strengthen the structures that support women's entrepreneurship through co-operation and the exchange of knowledge and best practices;
- W.IN.NET Europe, Interreg IIIC (2006 - 2008) - The aim was to create WINNET Europe - the European Association of Women Resource Centres;
- Women In Net 8, WINNET8, Interreg IVC (2010 - 2011) - The objective was to contribute to regional growth by improving women's participation in the labour market, focusing on: the lack of women in innovation and technology, the lack of women in entrepreneurship.

More information about us and our activities can be found on the website: <http://www.balticsearegion.org/>

If you would like to be a member or an associated partner of WCE® or have any question concerning our activities, please contact us. You can reach us under the addresses given below.

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