# Cultural and social factors contributing to gender gaps in the labour market

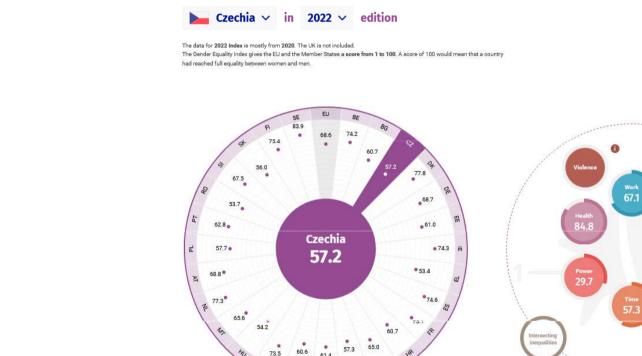
Lena Adamus 12.03.2024 Brno

### Gender equality index - EU



2022 Index highlights

### Gender equality index - CR



More on

Czechia

58.9

2022 Index highlights

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#### Gender Equality Index

View countries

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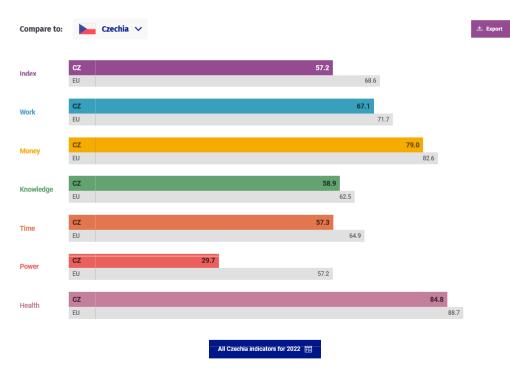
Index Game

Videos

# CR vs EU



#### Scores in Czechia



# Work



#### FTE employment rate (%) 🕕

CZ-W	48	
CZ-M	60	5
EU-W	41	
EU-M	57	

Source: Eurostat, EU LFS, 2020.

#### Duration of working life (years) 🌒

CZ-W	33	
CZ-M		39
EU-W	33	
EU-M		38

Source: Eurostat, EU LFS, 2020. |fsi\_dwl\_a.

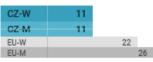
#### 53.8 Segregation and quality of work

Employed people in education, human health and social work activities (%) 🕕

CZ-W			26	
CZ-M	5			
EU-W				30
EU-M	8			

Source: Eurostat, EU LFS, 2020. lfsa\_egan2, lfsa\_egana.

Ability to take one hour or two off during working hours to take care of personal or family matters (%)



Source: Eurofound, EWCS, 2015. EIGE's calculation with microdata.

#### Career Prospects Index (points, 0-100) 🛈

CZ-W	61
CZ-M	65
EU-W	62
EU-M	63

Source: Eurofound, EWCS, 2015. Calculated by Eurofound.

# Time

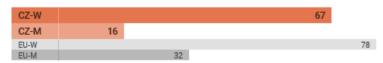
# 56.8 Care activities

People caring for and educating their children or grandchildren, elderly or people with disabilities, every day (%)

CZ-W		33	
CZ-M	20		
EU-W		37	
EU-M	25		

Source: Eurofound, EQLS, 2016. EIGE's calculation with microdata.

#### People doing cooking and/or household, every day (%)



Source: Eurofound, EQLS, 2016. EIGE's calculation with microdata.



#### **Social activities**

Workers doing sporting, cultural or leisure activities outside of their home, at least daily or several times a week (%)

CZ-W	23	
CZ-M	28	
EU-W	27	
EU-M	3	31

Source: Eurofound, EWCS, 2015. EIGE's calculation with microdata.

#### Workers involved in voluntary or charitable activities, at least once a month (%)

CZ-W	12
CZ-M	11
EU-W	12
EU-M	11

Source: Eurofound, EWCS, 2015. EIGE's calculation with microdata.

## Education

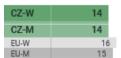


Graduates of tertiary education (%) 🌘

CZ-W	21	
CZ-M	19	
EU-W		27
EU-M		26

Source: Eurostat, EU LFS, 2020.

#### People participating in formal or non-formal education (%)



Source: Eurostat, EU LFS, 2020.



Tertiary students in education, health and welfare, humanities and arts (%) 🕕

CZ-W		46
CZ-M	21	
EU-W		43
EU-M	21	

Source: Eurostat, Education statistics, 2020. educ\_enrl5, educ\_uoe\_enrt03.

Important concepts

- Glass ceiling
- Sticky floor
- Glass escalator
- Matilda effect
- Motherhood penalty

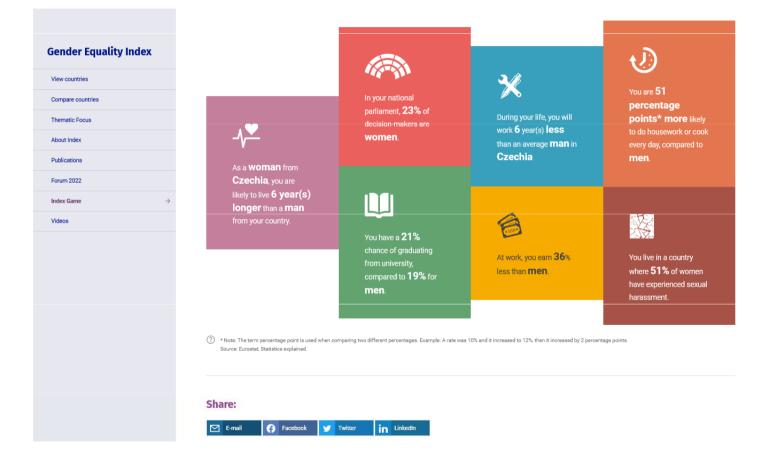
#### Important concepts

- Glass ceiling: a metaphorical barrier preventing women from advancing in a work hierarchy.
- Sticky floor: a metaphor indicating that women tend to occupy lower-paid occupations with lower mobility potential.
- Glass escalator: in female-dominated occupations, men tend to advance faster that women. A premium for being a man in a female-dominated field.
- Matilda effect: attributing female scientific achievements to their male peers (e.g., Skłodowska-Curie, Rosalind Franklin).
- Motherhood penalty: percentage wage decrease after every child born by a woman. The larger the drop, the more incline women are not to come back to work.

### Presentation tips

- How does the gender gaps look in your country? What are legal regulations in your country?
- How changes in labour force participation affect wellbeing, household work arrangement (and vice versa)?

# A not-so-funny game



# Further read

Williams, A. (2020). Why women are poorer than men and what we can do about it?

# **Presentation tips**

- Which occupations are female-dominated and which are maledominated in your country?
- How occupational seggregation (both vertical and horizontal) contribute to gender wage gap?
- Are the female-dominated jobs less paid?

# So what is gender?

- Politically correct term for *sex*?
- The term *sex* refers to "biologically determined aspects of men and women's behaviour, whereas *gender* denotes male-female differences that are shaped by sociocultural factors" (Ashmore & Sewell, 1998, p. 378).
- When referring to men and women as members of a social group one should use the term *gender*, while *sex* is more appropriate in contexts where biological differences predominate.
- Sex characteristics are attributes that are directly related to biological features, while gender characteristics are those that are culturally associated with a person because of his or her biological sex.
- Two debates: *heredity* vs. *environment* (*nature-nurture*) and *essentialism* vs. *constructivism*

# Economics of gender

- Definition: Gender Economics is the area in economics that explicitly considers the effects of having two *sexes* as they interact in families, firms, and markets.
- Theoretical models including two sexes;
- Empirical work addressing differences between the sexes;
- Analysis of policies that affect genders in different ways;
- The ultimate question: why men and women differ?

Answers to the *why* questions on various level:

- Individual and biological
- Institutional
- Social and cultural

# Key conepts

- Cultural differences
- Stereotypes
- Discrimination
- Backlash

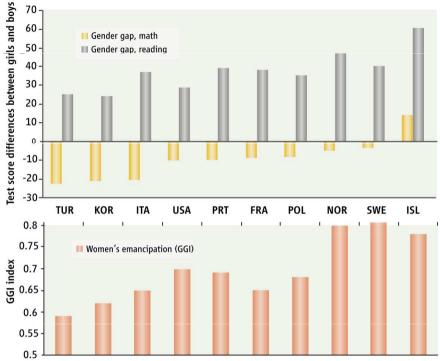
### Focus Why are women underrespresented in science?

There are proportionally fewer women in science and math careers, both in academia and private industry. In early 2005, economist and president of Harvard University Lawrence Summers sparked an enormous public debate over why this is the case. In his comments, Summers indicated that he believed that men are more likely to be on the tails of the bell curve of mathematical ability. Assuming that scientists are would be drawn from the high scorers, this implies that men would outnumber women in the mathematically oriented professions. He also cited the

reluctance or inability of women with children to work 80-hour weeks. His focus on innate ability angered a number of women scientists. The women scientists argued that Summers discounted discrimination and social factors in general, including opportunities and encouragement for women to enter scientific careers, instead jumping to a biologically based explanations. Summers apologised publicly, but along with other issues related to his outspokenness, this led to his resignation as Harvard's president in 2006. (see Jacobsen, 2012)



Guiso, L., Monte, F., Sapienza, P., & Zingales, L. (2008), Culture, gnder and math, *Science*, 320, 1164-1165.



**Math and reading gender gaps.** In more gender-equal cultures, the math gender gap disappears and the reading gender gap becomes larger. (**Top**) Gender gaps in mathematics (yellow) and reading (gray) are calculated as the difference between the average girls' score and the average boys' score. A subset of countries is shown here (see SOM for complete data set and calculations). In many countries, on average, girls perform more poorly than boys in mathematics. In all countries, girls perform better than boys in reading. The gender gap in mathematics and reading correlates with country measures of gender status within the culture, one of which measures is the GGI (**bottom**). Larger values of GGI point to a better average position of women in society. Besides USA, the countries are abbreviated as their first three letters, except for PRT, Portugal, and ISL, Iceland.

### Anecdotical evidence



#### PERSONAL EXPERIENCES

As a transgendered person, no one understands more deeply than I do that there are innate differences between men and women. I suspect that my transgendered identity was caused by fetal exposure to high doses of a testosterone-like drug. But there is no evidence that sexually dimorphic brain wiring is at all relevant to the abilities needed to be successful in a chosen academic career. I underwent intensive cognitive testing before and after starting testosterone treatment about 10 years ago. This showed that my spatial abilities have increased as a consequence of taking testosterone. Alas, it has been to no avail; I still get lost all the time when driving (although I am no longer willing to ask for directions). There was one innate difference that I was surprised to learn is apparently under direct control of testosterone in adults the ability to cry easily, which I largely lost upon starting hormone treatment. Likewise, male-tofemale transgendered individuals gain the ability to cry more readily. By far, the main difference that I have noticed is that people who don't know I am transgendered treat me with much more respect: I can even complete a whole sentence without being interrupted by a man.

Shortly after I changed sex, a faculty member was heard to say: Ben Barres gave a great seminar today, but then his work is much better than his sister's.

• Barres, B. (2006). A commentary, Nature, 442, 133-136

# Further read

Maney, D.L. 2016. Perils and pitfalls of reporting sex differences. Phil. Trans. R. Soc. B 371: 20150119.

### **Presentation tips**

• Does reversing the general educational gender gap contribute to closing wage gap?

# Cross-culture approach Are you WEIRD?

Gneezy, Leonard, & List (2009)

- Used a controlled experiment to explore whether there are gender differences in selecting into competitive environments across distinct societies: the Maasai in Tanzania and the Khasi in India.
- The Maasai represent an example of a patriarchal society, whereas the Khasi are matrilineal.
- Similar to the extant evidence drawn from experiments executed in Western cultures, Maasai men opt to compete at roughly twice the rate as Maasai women.
- Interestingly, this result is reversed among the Khasi: women choose the competitive environment more often than Khasi men, and even choose to compete weakly more often than Maasai men.

# Cross-culture approach Are you WEIRD?

Finucane et al. (2000)

- Data collected as part of a national telephone survey designed to test hypotheses about risk perceptions over a range of hazards. The survey contained questions about worldviews, trust, and a range of demographic variables.
- All respondents were asked to consider health and safety risks `to you and your family' and to indicate whether there is almost no risk, slight risk, moderate risk, or high risk from each of 13 hazardous activities and technologies (for example, blood transfusions; motor vehicles; nuclear power plants; vaccines) and safety risks from 19 hazards for `the American public'.
- Claimed that there are no universal gender differences, there is only a "white male effect".

### Eurobarometer on stereotypes

#### Table 1

Institutional variables by country.

Country		Indicato	r													
		GDP	Employn populatio		Part-time employm		Overall men are less competent	A father must put his career	Length of j	paid leave				Childcare coverage		-
		Per capita (\$)	Female (%)	Male (%)	Female (%)	Male (%)	than women to perform household tasks	ahead of looking after his young child	Total (weeks)	Maternity leave (weeks)	Parental leave (weeks)	Home care leave	Leave reserved for fathers (including paternity leave; weeks)		Aged 3-6	-
Source		World Bank		Eur	rostat		Eurobarometer	<u>.</u> .	0	ECD Family D	atabase (2016)	+ Multilink	s (2011)	Eurostat		
Continental	Germany	42026	66	76	45	8	52%	26%	110.0	14.0	96.0	0.0	6.7	20	).6	89.
Europe	Austria	46513	64	75	42	8	58%	41%	138.0	16.0	122.0	0.0	16.5	8.9	9	75.8
-	Netherlands*	49995	69	81	76	24	20%	16%	29,0	16.0	13.0	0.0	13.4	45	6.8	88.9
	France	40917	59	69	30 42	6	31%	14%	42.0	16.0	26.0	0.0	2.0	36	5.9	94.
	Belgium*	44024	56	68	42	8	36%	26%	28.9	15.0	13.9	0.0	15.9	41	.3	98.3
astern	Estonia	15675	64	69	12	5	38%	21%	162.1	20.0	142.1	0.0	2.0	17	7.8	87.6
Europe	Czech Rep.	19638	57	74	9	2	51%	35%	214.0	28.0	186.0	0.0	0.0	2.4	4	70.6
	Slovak Rep.	16051	53	67	5	2	51%	48%	164.0	30.0	134.0	0.0	0.0	3.	4	71.4
	Lithuania	12543	61	63	10	7	52%	26%	114.5	18.0	96.5	0.0	6.0	10	.4	63.9
	Latvia	12377	62	66	10	6	56%	39%	121.3	16.0	79.0	26.3	3 2.0	17	.7	68.9
	Hungary	13320	51	62	7	4	71%	48%	160.0	24.0	84.0	52.0	) 1.0	8.	0	77.1
	Slovenia	23447	62	70	12	7	47%	25%	52.3	15.0	37.3	0.0	18.0	32	2.8	86.9
	Bulgaria*	6833	57	64	3	2	66%	38%	114.2	35.3	79.0	0.0	2.0	9.	5	66.4
	Poland*	12074	51	64	12	6	57%	40%	23.1	20.2	2.9	0.0	0.7	3.	1	35.8
	Romania	8475	53	66	11	9	63%	37%	114.0	18.0	96.0	0.0	1.0	7.	0	55.9

# Further read

Henrich, J. (2020). The WEIRDest people in the world: How the West became psychologically perculiar and particularly prosperous?

Henrich, J., et al. (2010). The weirdest people in the world? *Behavioural and brain sciences*, vol. 33, pp. 61-83. doi:10.1017/S0140525X0999152X

Cukrowska-Torzewska, E. & Lovasz, A. (2019). The role of parenthood in shaping the gender wage gap — A comparative analysis of 26 European countries

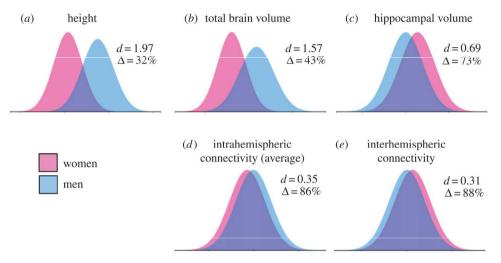
# Discrimination

Discrimination = "the valuation in the market place of personal characteristics of the worker that are unrelated to worker productivity"

Statistical discrimination = imperfect productivity information  $\rightarrow$  use of statistic information/stereotypes to evaluate a person (judging by belonging to a group rather than individual competences and skills)

# Understanding statistics

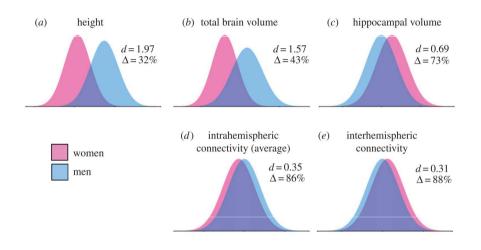
- *d*=.2 (small), *d*=.5 (medium), *d*=.8 (large)
- https://sexdifference.org/



# Discrimination

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Statistical discrimination = imperfect productivity information  $\rightarrow$  use of statistic information/stereotypes to evaluate a person (judging by belonging to a group rather than individual competences and skills)



# Further read

Arrow, K. (1973). The theory of discrimination. In: O. Ashenfelter and A. Rees (eds.), *Discrimination in Labor Markets*, Princeton, NJ: Princeton University Press.

Phelps, E. (1972). "The Statistical Theory of Racism and Sexism". American Economic Review. 62 (4): 659–661.

# Stereotypes

- Gender stereotypes = reflections of observed behaviour
- May be biased or incorrect
- Two types of stereotypes: descriptive and prescriptive

# Gender stereotypes and identity

- Men and women are socialised to different roles.
- Specifically, already at an early stage of development, boys and girls learn gender-appropriate activities and behaviours (Eagly, 1987).
- Boys are socialised to be masculine (instrumental or agentic) and to develop traits such as aggression, independence, ambition and rationality.
- Girls are praised for being feminine (expressive or communal) and encouraged to be warm, caring, emotional and socially-oriented (Bem, 1974).

# Gender stereotypes and identity

- Consequently, occupations are not gender-neutral either, with some being considered appropriate for men and some reserved almost exclusively for women.
- Gender stereotypes can, thus, distort individuals ' preferences for occupations.
- Congruence theory (Eagly and Karau, 2002) further explains that the preferences are likely to be distorted because of the biases against adopting masculine roles by individuals with predominantly feminine characteristics (and vice versa).
- Consequently, individuals who perceive themselves as incongruent with the gendered notion of a given job are likely to feel discouraged from pursuing it as a potential career.

# Backlash

- Backlash = a strong negative reaction
- In the gender context = social desirability (expectations) of behaviour increases when it is consistent with prescriptions applicable to one's gender;
- Individuals are likely to be penalized for non-conforming behaviour i.e., inconsistent with gender-relevant prescriptive norms
- Often related to a trade-off faced by women: they may be perceived as either competent or likeable
- Trade-off: maintaining identity or pursuing a career

# Further read

Akerlof, G. & Kranton, R. (2010). *Identity Economics*. Princeton University Press.

Eagly, A.H. (1987), Sex Differences in Social Behaviour: A Social-Role Interpretation, Lawrence Erlbaum, London.

Eagly, A.H. and Karau, S.J. (2002), Role congruity theory of prejudice toward female leaders, *Psychological Review*, 109(3), pp. 573-598.

Eagly, A.H. and Steffen, V.J. (1984), Gender stereotypes stem from the distribution of women and men into social roles, *Journal of Personality and Social Psychology*, 46(4), pp. 735-754.

### Presentation tips

- How gender stereotypes contribute to gender gaps across countries?
- How strongly are gender stereotypes associated with labour market outcomes in your country?

#### Case study - entrepreneurship

Entrepreneurs impact positively economics, poverty and development

## Gender and El

Entrepreneurs impact positively economics, poverty and development

Attractive alternative for formal employment

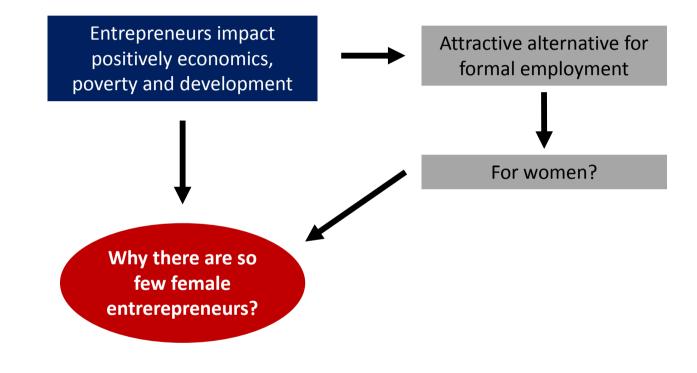
## Gender and EI

Entrepreneurs impact positively economics, poverty and development

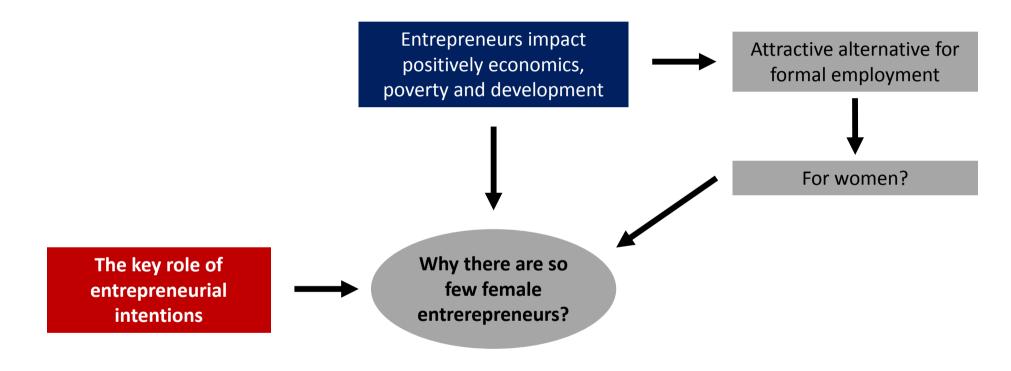
Attractive alternative for formal employment

For women?

## Gender and El



## Gender and El



The survey respondents were 552 Slovaks (49.5% women) aged 19 to 65, who were not entrepreneurs.

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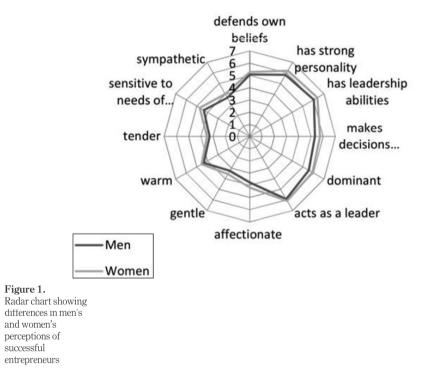
Recruited through an external participant recruitment agency.

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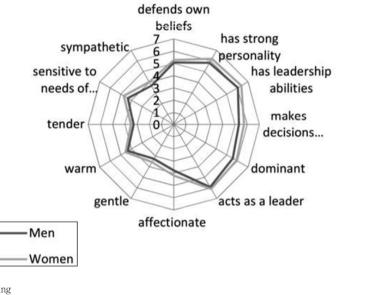
Recruited through an external participant recruitment agency.

Representative of the general population in terms of gender and age.









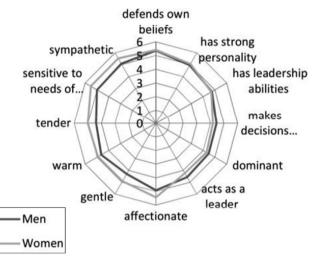
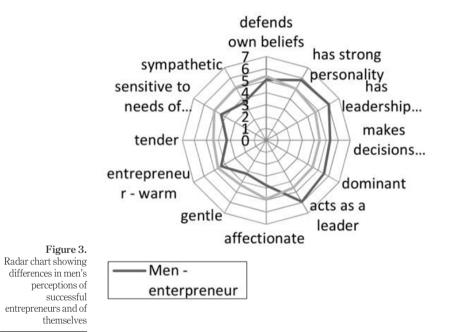
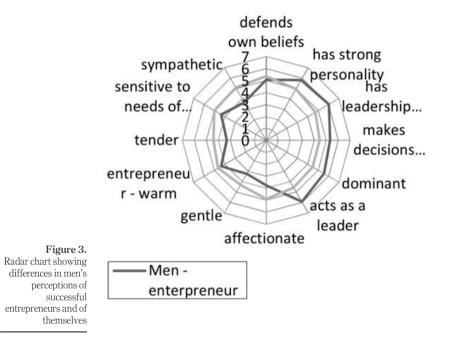


Figure 1. Radar chart showing differences in men's and women's perceptions of successful entrepreneurs Figure 2. Radar chart showing differences in men's and women's perceptions of themselves









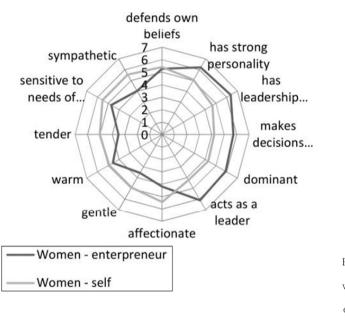
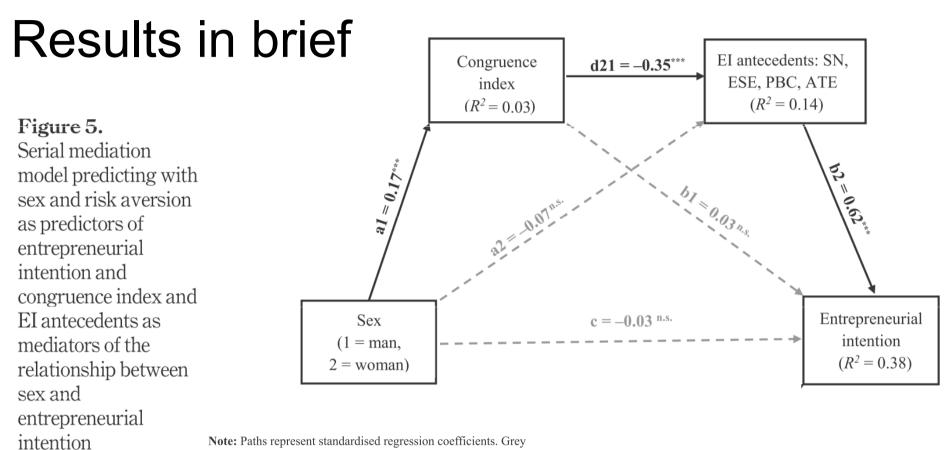
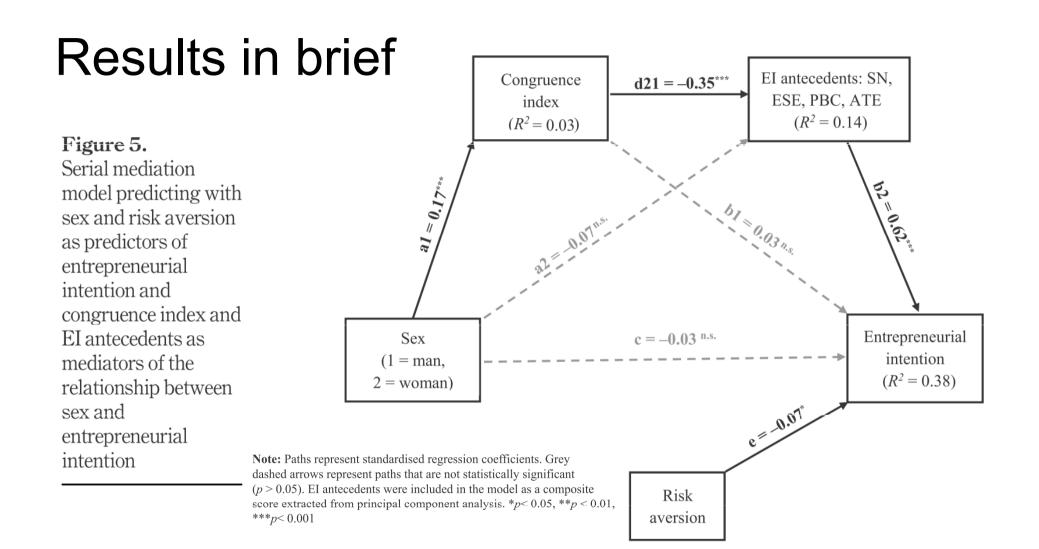


Figure 4. Radar chart showing differences in women's perceptions of successful entrepreneurs and of themselves



**Note:** Paths represent standardised regression coefficients. Grey dashed arrows represent paths that are not statistically significant (p > 0.05). EI antecedents were included in the model as a composite score extracted from principal component analysis. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001



# Further read

Rudman, L. A. & Glick, P. (2001). Prescriptive Gender Stereotypes and Backlash Toward Agentic Women. *Journal of Social Issues*, *57*(4), 743–762.

Rudman, L. A. & Mescher, K. (2013). Penalizing Men Who Request a Family Leave: Is Flexibility Stigma a Femininity Stigma? *Journal of Social Issues*, *69*(2), 322–340.

Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E. & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, *48*(1), 165–179.

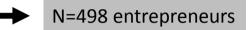
#### Gender biases in starting a business

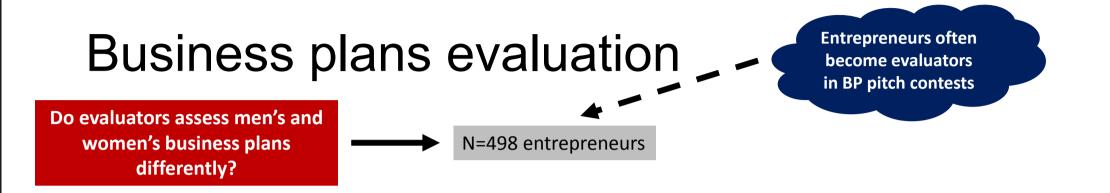
### **Business plans evaluation**

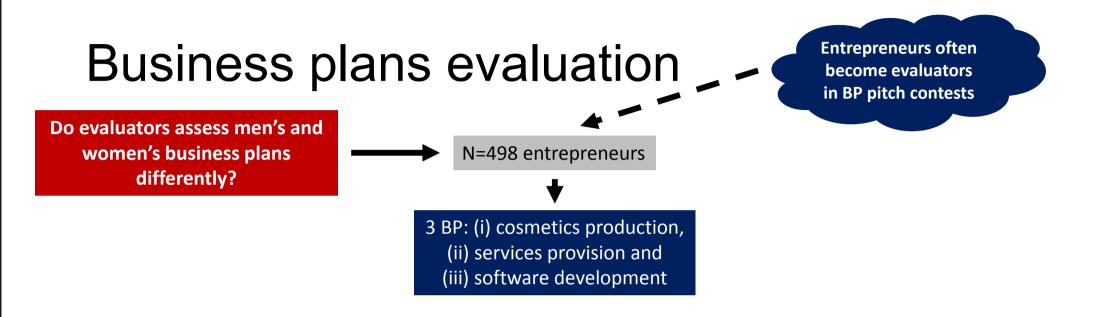
Do evaluators assess men's and women's business plans differently?

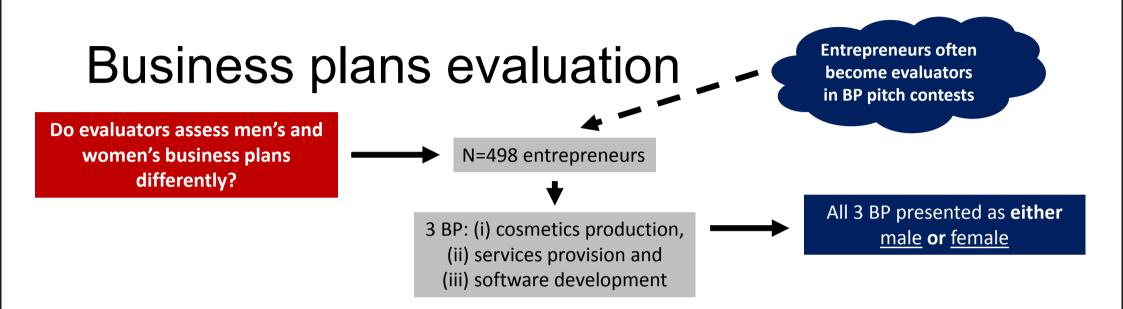
## **Business plans evaluation**

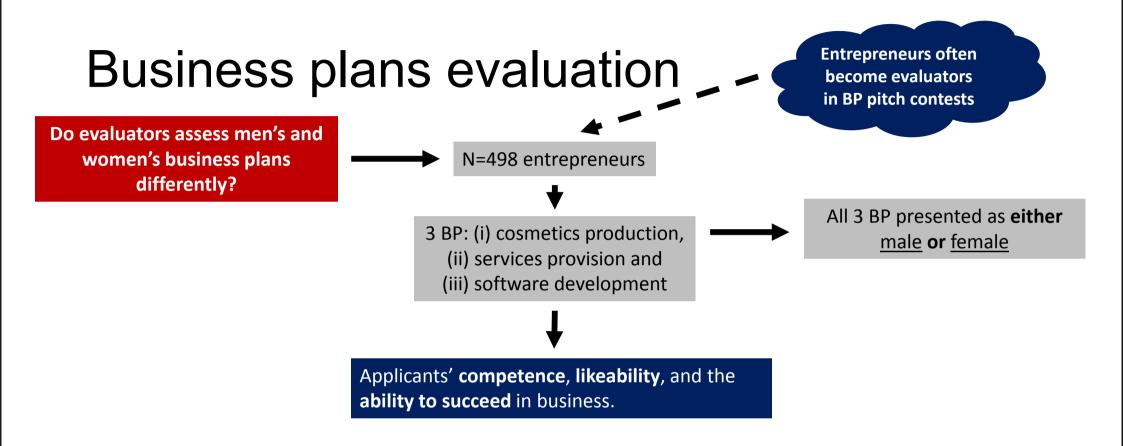
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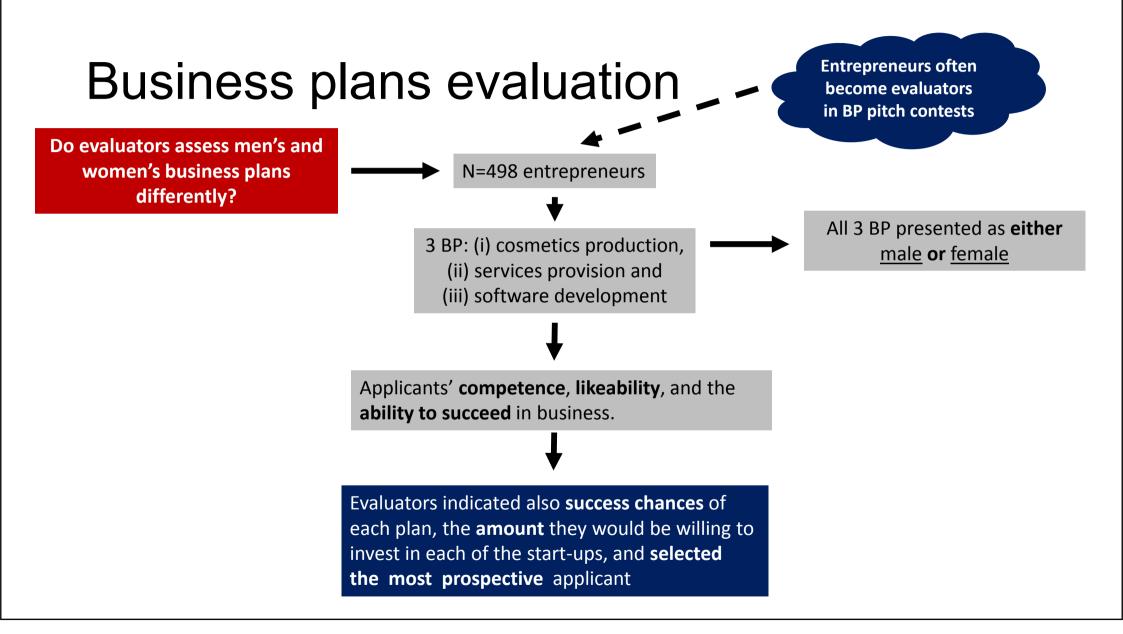












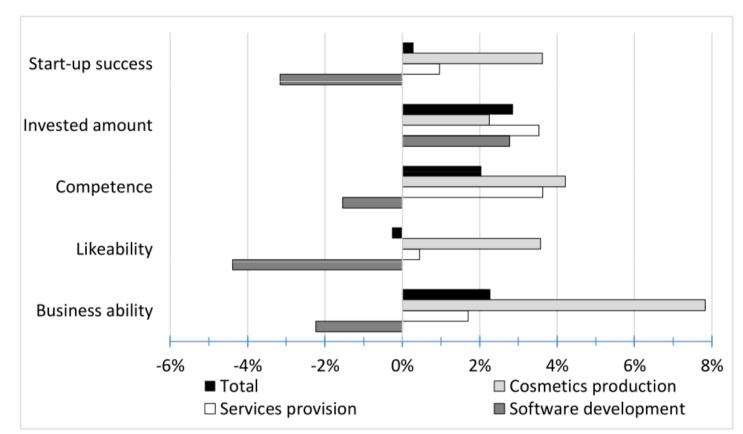
Ing. Jana Kováčová/ Ing. Pavol Horváth Date of birth: 12.4.1997 Telephone number: 0903347483 Email: jana.kovacova@gmail.com pavol.horvath@gmail.com	Education         2016-2020: Learning programme: Food, nutrition, cosmetics         Slovak University of Technology in Bratislava         2008-2016: Bilingual high school in Žilina         Experience         2020-2021: Work at Soaphoria shop in Bratislava         • Sales of cosmetics         • Training in natural soap and cosmetics production         2019: Practice at Manufaktúra shop in Bratislava         • Sales of cosmetics         • Training in natural soap and cosmetics production         2019: Practice at Manufaktúra shop in Bratislava         • Sales of cosmetics         • Training in skin care
Natural cosmetics "Purita"	Products We will offer natural soaps, shampoo bars and conditioners containing natural ingredients such as oil, goat milk and herbal essences. Products will be ecological and local ingredients will be favoured whenever possible. Products will be suitable for various skin types. Packaging will be returnable/reusable and clients who send packaging back will receive 5% discount on next purchase.
Target group	Form of sale
women aged 15-65	E-shop
Main strengths of the products <ul> <li>Sustainable cosmetics</li> <li>Skin-friendly</li> <li>Locally produced</li> <li>Re-usable packaging</li> <li>Not-tested on animals</li> </ul>	<ul> <li>Marketing activities</li> <li>Advertisements through social networks</li> <li>Mini samples for customers to test products</li> <li>Workshops on natural soap production</li> <li>Loyalty programme and gift packs</li> </ul>
Required financial resources The estimated amount: 10,000€ includes lease of facilities and equipment necessary to start production, certification of products, establishing e-shop, marketing and advertisements.	Market competitors Retail chains (e.g. Tesco, Lidl) and drug stores selling cosmetics (not necessarily natural cosmetics). Local producers such as Soaphoria, Mydlove or Dulcia.

Ing. Zuzana Nováková/ Ing. Jozef Baláž Date of birth: 11.2.1996 Telephone number: 0908327921 Email: <u>zuzana.novakova@gmail.com</u> jozef.balaz@gmail.com	Education 2016-2020: Learning programme: Regional development and Tourism, Masaryk University in Brno 2008-2016: Ľudovít Štúr high school in Trenčín Experience 2020-2021: Work at travel agency Čedok in Brno as sales manager Sales of holidays and sightseeing tours Guide course 2019: practice at the Grand Hotel in Brno Communication with guests Participation in marketing activities Managing bookings
Firm name Travel agency "Young soul"	Services We will offer trips to interesting sites in Slovakia at competitive prices. The target group includes young people who want to visit new places but have low budget. Participants will try traditional crafts and will help local farmers. Instead of financial remuneration they will receive accommodation and food which will make travelling more accessible. Some of the tours will be related to historic monuments restoration.
Target group Young people below 26	Form of sale Online application
<ul> <li>Main strengths of the services         <ul> <li>Promoting tourism in Slovakia</li> <li>Supporting tourism among young people and students</li> <li>Revitalisation of historic monuments</li> </ul> </li> <li>Required financial resources         <ul> <li>The estimated amount: 10,000€ includes development of the application, dissemination,</li> </ul> </li> </ul>	Marketing activities         • Posters at universities         • Offers at Isic.sk         • Campaigns in social networks,         • Articles in Refresher.sk         • Short videos about interesting sites         Market competitors         Travel agencies such as Hydrotour, Fifo or Bubo and the Erasmus+ programme.
costs of starting cooperation with farm owners and partners restoring monuments.	

Ing. Kristína Šedivá/ Ing. Adam Balaj Date of birth: 9.5.1997 Telephone number: 0905528901 Email: kristina.sediva@gmail.com adam.balaj@gmail.com	Education 2016-2020: Programming and development, Faculty of Informatics, Masaryk University in Brno 2008-2016: Ján Holly eight-year high school in Trnava Experience 2019-2021: Junior software engineer, Eset in Brno • Data analysis and visualisation • Development of web applications • Trainings in programming languages 2018: analysis of mobile applications, KPMG in Brno • Web analysis and tracking • Design and optimisation of e-shops (AB testing)
Firm name Application "Gastroturista"	Services The proposed application will be a tourist guide to monuments and touristic attractions in Slovakia for people from various age groups who are kin to travel and visit non-traditional places. The application will include also tips for gourmands, evaluations and photos of various sites, restaurants and cafes. Users who share their photos and opinions through social networks will obtain discounts at participating sites/facilities.
Target group Entire population	Form of sale Application for Android and IOS
<ul> <li>Main strengths of the application         <ul> <li>Linking tourism with culinary experiences</li> <li>Promotion of tourism and support for good gastronomy in Slovakia</li> </ul> </li> </ul>	Marketing activities <ul> <li>Campaigns through social networks</li> <li>Short videos about travelling</li> </ul>
Required financial resources The estimated amount: 10,000€ includes developing the application, trade negotiations, cooperation with owners and promotion of the application.	Market competitors Web pages: Tripadvisor.com, Hiking.sk

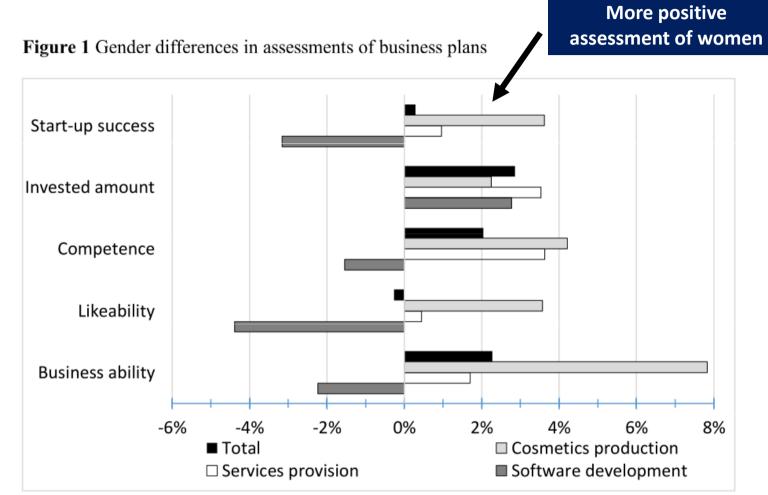
## Results

Figure 1 Gender differences in assessments of business plans

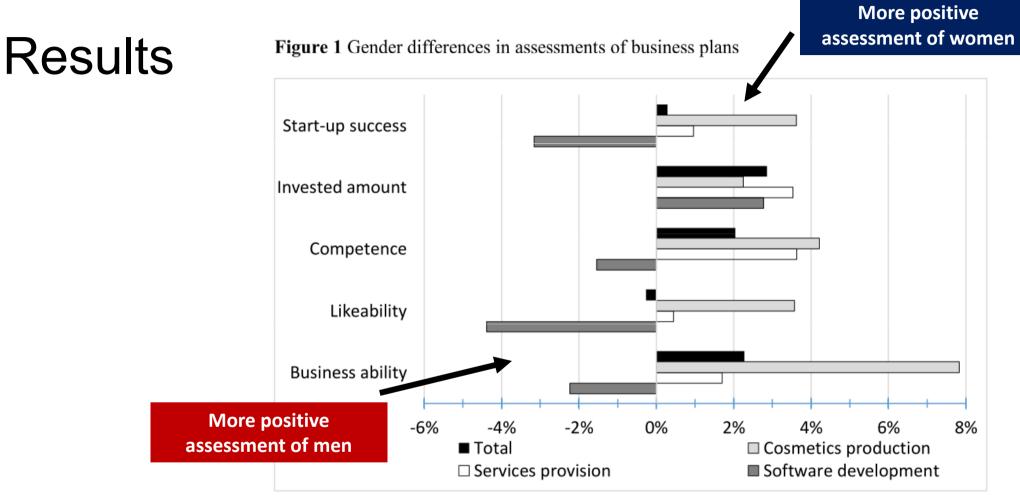


Source: Authors

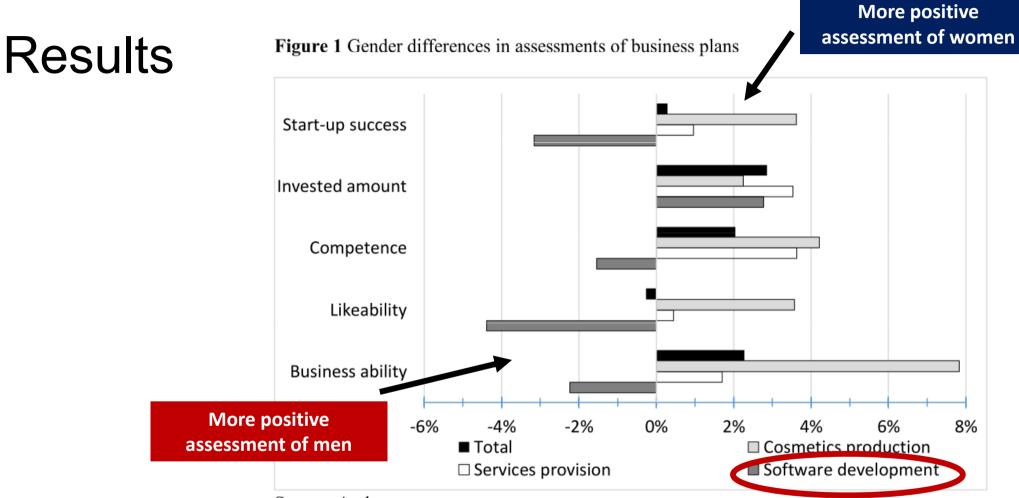
## Results



Source: Authors



Source: Authors



Source: Authors

Dependent variable	Start-up success	Invested amount	Competence	Likeability	Business ability
	(1)	(2)	(3)	(4)	(5)
Female applicant	0.009	0.013	0.088	0.047	-0.008
	(0.021)	(0.030)	(0.115)	(0.111)	(0.114)
Male evaluator	-0.085***	-0.034	-0.439***	-0.473***	-0.470***
	(0.024)	(0.034)	(0.128)	(0.128)	(0.132)
Interaction	-0.008	0.009	0.037	0.124	0.041
	(0.034)	(0.049)	(0.179)	(0.180)	(0.183)
Female applicant	0.005	0.017	0.018	0.018	0.002
	(0.017)	(0.024)	(0.015)	(0.015)	(0.015)
Male evaluator	-0.089***	-0.029	-0.070***	-0.069***	-0.075***
	(0.018)	(0.025)	(0.015)	(0.015)	(0.016)
Same-sex pair	0.004	-0.005	-0.003	-0.01	-0.003
	(0.017)	(0.024)	(0.015)	(0.015)	(0.015)
Female applicant	0.172*	0.338**	1.125**	1.004*	0.584
	(0.101)	(0.146)	(0.546)	(0.527)	(0.548)
Masculinity of evaluator	0.062***	0.069***	0.430***	0.445***	0.361***
	(0.015)	(0.022)	(0.085)	(0.084)	(0.089)
Interaction	-0.038*	-0.072**	-0.233*	-0.207*	-0.134
	(0.023)	(0.032)	(0.122)	(0.119)	(0.124)

#### Table 2 Assessment of business plans and their interactions with evaluator characteristics

# Results

	Table 2 Assessment	<u>er e aonie oo pr</u>				
Results	Dependent variable	Start-up success	Invested amount	Competence	Likeability	Business ability
results		(1)	(2)	(3)	(4)	(5)
	Female applicant	0.009	0.013	0.088	0.047	-0.008
		(0.021)	(0.030)	(0.115)	(0.111)	(0.114)
	Male evaluator	-0.085***	-0.034	-0.439***	-0.473***	-0.470***
		(0.024)	(0.034)	(0.128)	(0.128)	(0.132)
	Interaction	-0.008	0.009	0.037	0.124	0.041
		(0.034)	(0.049)	(0.179)	(0.180)	(0.183)
	Equals applicant	0.005	0.017	0.018	0.018	0.002
		(0.017)	(0.024)	(0.015)	(0.015)	(0.015)
han women evaluators, bu	it no differences are	-0.089***	(0.024) -0.029	(0.015) -0.070***	(0.015) -0.069***	
han women evaluators, bu confirmed when men assess	it no differences are female applicants or	-0.089*** (0.018)	· /		· /	(0.015)
han women evaluators, bu confirmed when men assess when evaluators assess applic	it no differences are female applicants or cants of same sex (i.e.,	-0.089*** (0.018)	-0.029	-0.070***	-0.069***	(0.015) -0.075***
han women evaluators, bu confirmed when men assess when evaluators assess applic	it no differences are female applicants or cants of same sex (i.e.,	-0.089*** (0.018)	-0.029 (0.025)	-0.070*** (0.015)	-0.069*** (0.015)	(0.015) -0.075*** (0.016)
han women evaluators, bu confirmed when men assess when evaluators assess applic	it no differences are female applicants or cants of same sex (i.e.,	-0.089*** (0.018) 0.004	-0.029 (0.025) -0.005	-0.070*** (0.015) -0.003	-0.069*** (0.015) -0.01	(0.015) -0.075*** (0.016) -0.003
han women evaluators, bu confirmed when men assess when evaluators assess applic	it no differences are female applicants or cants of same sex (i.e., significant).	(0.017) -0.089*** (0.018) 0.004 (0.017)	-0.029 (0.025) -0.005 (0.024)	-0.070*** (0.015) -0.003 (0.015)	-0.069*** (0.015) -0.01 (0.015)	(0.015) -0.075*** (0.016) -0.003 (0.015)
han women evaluators, bu onfirmed when men assess when evaluators assess applic	it no differences are female applicants or cants of same sex (i.e., significant).	(0.017) -0.089*** (0.018) 0.004 (0.017) 0.172*	-0.029 (0.025) -0.005 (0.024) 0.338**	-0.070*** (0.015) -0.003 (0.015) 1.125**	-0.069*** (0.015) -0.01 (0.015) 1.004*	(0.015) -0.075*** (0.016) -0.003 (0.015) 0.584
han women evaluators, bu onfirmed when men assess vhen evaluators assess applic	it no differences are female applicants or cants of same sex (i.e., significant). Female applicant	(0.017) -0.089*** (0.018) 0.004 (0.017) 0.172* (0.101)	-0.029 (0.025) -0.005 (0.024) 0.338** (0.146)	-0.070*** (0.015) -0.003 (0.015) 1.125** (0.546)	-0.069*** (0.015) -0.01 (0.015) 1.004* (0.527)	(0.015) -0.075*** (0.016) -0.003 (0.015) 0.584 (0.548)
Male evaluators give lower e han women evaluators, bu confirmed when men assess when evaluators assess applic the interaction effects are not s	it no differences are female applicants or cants of same sex (i.e., significant). Female applicant	(0.017) -0.089*** (0.018) 0.004 (0.017) 0.172* (0.101) 0.062***	-0.029 (0.025) -0.005 (0.024) 0.338** (0.146) 0.069***	-0.070*** (0.015) -0.003 (0.015) 1.125** (0.546) 0.430***	-0.069*** (0.015) -0.01 (0.015) 1.004* (0.527) 0.445***	(0.015) -0.075*** (0.016) -0.003 (0.015) 0.584 (0.548) 0.361***

	Den en deut en richte					
Results	Dependent variable	Start-up success	Invested amount	Competence	Likeability	Business ability
results		(1)	(2)	(3)	(4)	(5)
	Female applicant	0.009	0.013	0.088	0.047	-0.008
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	Male evaluator	-0.085***	-0.034	-0.439***	-0.473***	-0.470***
		(0.024)	(0.034)	(0.128)	(0.128)	(0.132)
	Interaction	-0.008	0.009	0.037	0.124	0.041
		(0.034)	(0.049)	(0.179)	(0.180)	(0.183)
		<b>U</b>	0.017	0.018	0.018	0.002
ssessments on average but n	egative interaction term	s imply	0.017 (0.024)	0.018 (0.015)	0.018 (0.015)	0.002 (0.015)
ssessments on average but n hat masculine evaluators are l	egative interaction term harsher to women applie	s imply cants in *				
Our results indicate that manssessments on average but n hat masculine evaluators are l erms of start-up success, inves	egative interaction term harsher to women applie	s imply cants in *	(0.024)	(0.015)	(0.015)	(0.015)
ssessments on average but n hat masculine evaluators are l erms of start-up success, inves	egative interaction term harsher to women applie	s imply cants in *	(0.024) -0.029	(0.015) -0.070***	(0.015) -0.069***	(0.015) -0.075***
ssessments on average but n hat masculine evaluators are l erms of start-up success, inves	egative interaction term harsher to women applie	s imply cants in *	(0.024) -0.029 (0.025)	(0.015) -0.070*** (0.015)	(0.015) -0.069*** (0.015)	(0.015) -0.075*** (0.016)
ssessments on average but n hat masculine evaluators are l erms of start-up success, inves	egative interaction term harsher to women applie	s imply cants in * ce, and	(0.024) -0.029 (0.025) -0.005	(0.015) -0.070*** (0.015) -0.003	(0.015) -0.069*** (0.015) -0.01	(0.015) -0.075*** (0.016) -0.003
ssessments on average but n hat masculine evaluators are l erms of start-up success, inves	egative interaction term harsher to women applie ted amount, competene	s imply cants in * ce, and (0.017)	(0.024) -0.029 (0.025) -0.005 (0.024)	(0.015) -0.070*** (0.015) -0.003 (0.015)	(0.015) -0.069*** (0.015) -0.01 (0.015)	(0.015) -0.075*** (0.016) -0.003 (0.015)
ssessments on average but n hat masculine evaluators are l erms of start-up success, inves	egative interaction term harsher to women applie ted amount, competene	s imply cants in * ce, and (0.017) 0.172*	(0.024) -0.029 (0.025) -0.005 (0.024) 0.338**	(0.015) -0.070*** (0.015) -0.003 (0.015) 1.125**	(0.015) -0.069*** (0.015) -0.01 (0.015) 1.004*	(0.015) -0.075*** (0.016) -0.003 (0.015) 0.584
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issessments on average but n hat masculine evaluators are l	egative interaction term harsher to women applie ted amount, competend Female applicant	s imply cants in * ce, and (0.017) 0.172* (0.101) 0.062***	(0.024) -0.029 (0.025) -0.005 (0.024) 0.338** (0.146) 0.069***	(0.015) -0.070*** (0.015) -0.003 (0.015) 1.125** (0.546) 0.430***	(0.015) -0.069*** (0.015) -0.01 (0.015) 1.004* (0.527) 0.445***	(0.015) -0.075*** (0.016) -0.003 (0.015) 0.584 (0.548) 0.361***

**Table 2** Assessment of business plans and their interactions with evaluator characteristics

## Results

	(1)	
Startup services	1.11	(0.29)
Startup IT	2.83***	(0.701)
Man evaluator	0.84	(0.259)
Startup services x Man evaluator	1.26	(0.535)
Startup IT x Man evaluator	1.3	(0.526)
Woman applicant	0.87	(0.239)
Startup services x Woman applicant	1.84	(0.686)
Startup IT x Woman applicant	0.83	(0.302)
Woman applicant x Man evaluator	1.9	(0.807)
Startup services x Woman applicant x Man evaluator	0.42	(0.246)
Startup IT x Woman applicant x Man evaluator	0.38*	(0.217)
Constant	0.33***	(0.062)
Ν	1494	
Pseudo R2	0.0293	

Table 3 Odds ratios of selecting the most prospective applicant (logit model)

Source: Authors

Note: p < 0.1, p < 0.05, p < 0.01. Dependent variable is equal to 1 if the start-up plan is marked as the most prospective by the evaluator.

## Results

<u> </u>		<u> </u>
	(1)	
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Constant	0.33***	(0.062)
has 2.6 times lower probability (odds ratio of	1494	

**Table 3** Odds ratios of selecting the most prospective applicant (logit model)

The woman applicant in IT sector has 2.6 times lower probability (odds ratio of 0.38) to be selected as the most prospective applicant in the situation when the start-up is submitted by a woman applicant and evaluated by a man. This result points to the stereotype thinking of men about the potential success of women in different fields

nt variable is equal to 1 if the start-up plan is

0.0293

#### **Results and conclusions**

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1: Business plans written by women are assessed more negatively in sectors stereotypically associated with men.

# Results and conclusions

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2: The evaluators' masculinity may have an adverse effect on the evaluation.

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Culture-specific barriers that could slow down women's progress in entrepreneurship.

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Culture-specific barriers that could slow down women's progress in entrepreneurship.

3: Female evaluators described themselves as more masculine than men

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Culture-specific barriers that could slow down women's progress in entrepreneurship.

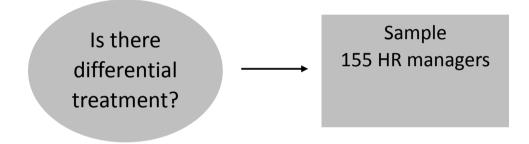
3: Female evaluators described themselves as more masculine than men

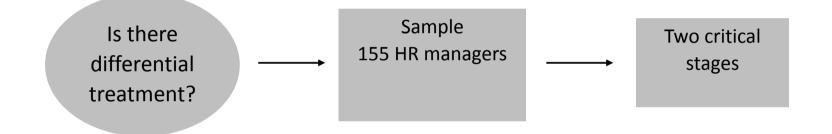
Hyper-masculine stereotypes about successful entrepreneurs may lead to self-selection of potential female entrepreneurs.

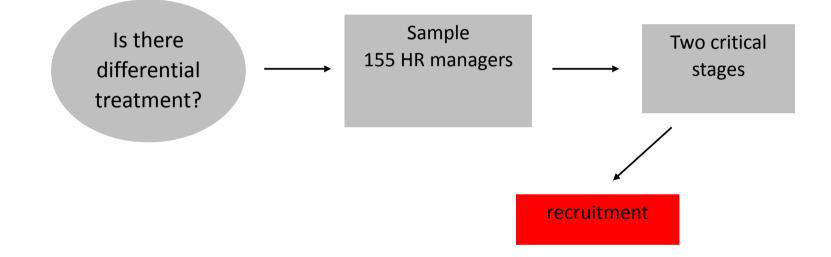
#### Take-home message

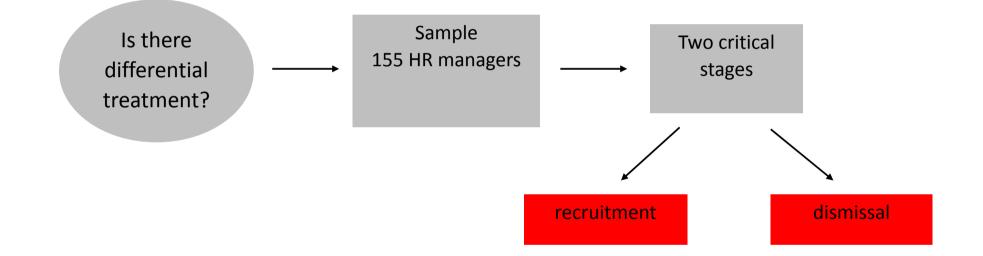
Caution is advised when recommending to increase the number of female evaluators of business plans in pitch competitions. If women who get involved in entrepreneurship are excessively masculine and masculinity is associated with less favourable evaluation of potential female entrepreneurs, such policies could backfire against women putting them in more disadvantaged position.

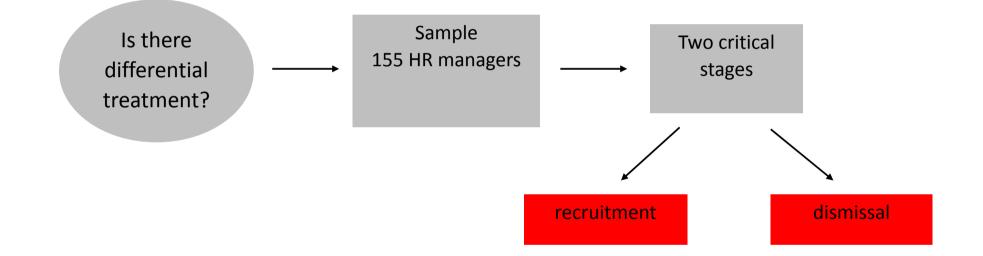
Is there differential treatment?







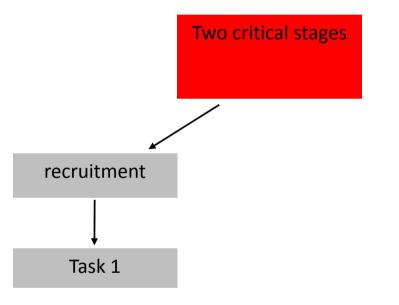




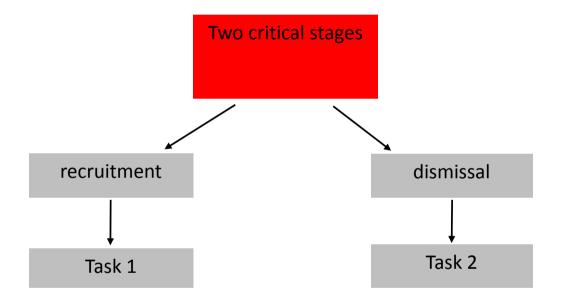
### Study design – vignette study

Two critical stages

### Study design – vignette study

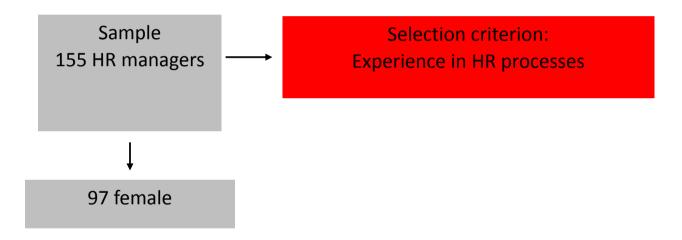


### Study design – vignette study



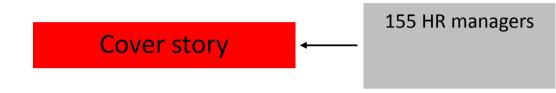
Sample 155 HR managers

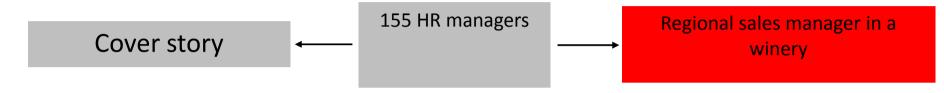


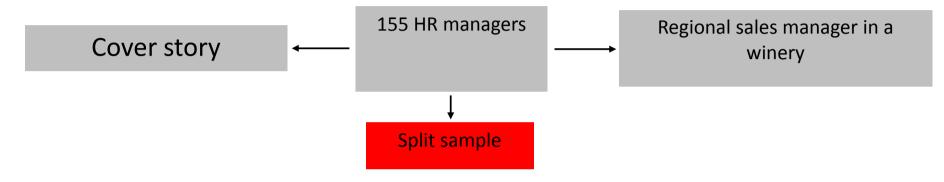


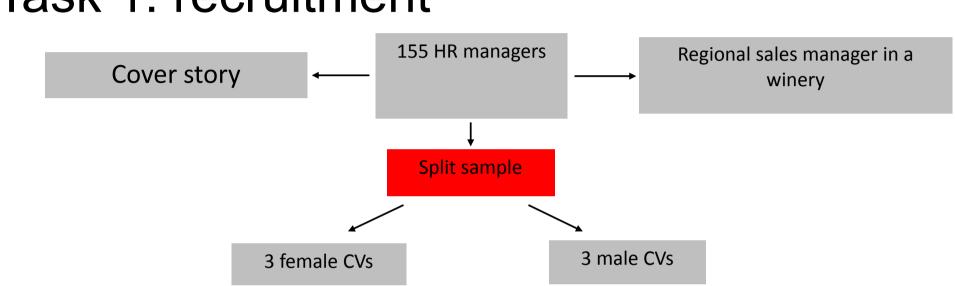


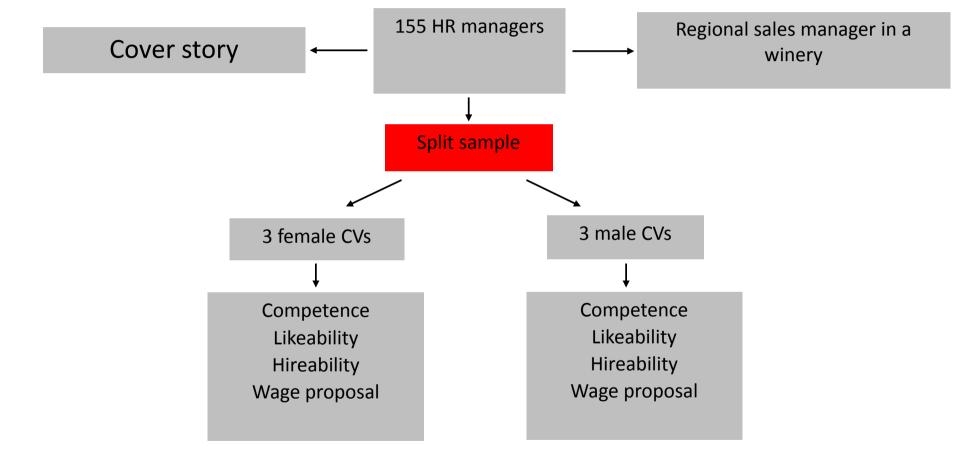
155 HR managers











Ing. Anna Šmitalová Date of birth: 17.9.1984

	Place of residence: Nitra
	Email: anna.smitalova@gmail.com Phone number: 0909/234 910
<u>Education</u>	• 2008, University of Economics in Bratislava: Marketing management
Working experiences	<ul> <li>11 years in domain</li> <li>2016 – 2020 sales manager, a company with 250 employees</li> <li>2009 – 2015 Head of Marketing, a company with 50 employees</li> </ul>
Courses and workshops	<ul><li>Risk Management Workshop</li><li>Team building and motivation</li></ul>
<u>Skills</u>	<ul> <li>software (accounting, project management software, MS Office),</li> <li>communication skills</li> <li>critical thinking</li> </ul>
	driving licence
<u>Language skills</u>	<ul><li>English, B2</li><li>German, A2</li></ul>
<u>Interests</u>	Music, detective novels, traveling
<u>Cover letter</u> References	yes yes

Ing.	Anna	Šmitalo	ονά	>
Date	of bi	17 9	198	4

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<u>Cover letter</u> References	yes yes									

Table 1 Vignette factors and factor	r levels	
Factor	Factor levels	
gender	2 levels	male/female
age	3 levels	35, 36, 37 years
educational attainment	3 levels	3 universities with different quality
professional experience	3 levels	8 years and small team, 10 years and medium team, 11 years and big team
vocational training	3 levels	considerable and job-related, average, none

## Task 1: questionnaire

- Competence (3 items): 1. Did the applicant strike as competent? 2. How likely is that the applicant has the necessary skills for this job? 3. How qualified you think the applicant is? Scale: 1 (not at all) to 7 (very much);
- Hireability (3 items): 1. How likealy would you be to invite the applicant to interview for the job? 2. How likely would you be to hire the applicant for the job? 3. How likely do you think it is thay the applicant was actually hired? Scale: 1 (not at all) to 7 (very much);
- Likeability (3 items): 1. How much did you like the applicant? 2. Would you characterize the applicant as someone you want to get to know better? 3. Would the applicant fit well with other team members? Scale: 1 (not at all likely) to 7 (very likely);
- Wage proposal: starting and after probation

#### Task 1: results

Table 2 Descriptive statistics of measured variables and differences between assessment of men and women applicants

		me	en applicants			wom	en applicants					
CV	N	ω	М	SD	N	ω	М	SD	t	df	р	d
best competence	77	.910	5.74	0.93	78	.992	5.73	1.08	0.059	153	.953	
hire-ability	77	.893	5.51	1.08	78	.987	5.67	1.02	-0.949	153	.344	
likeability	77	.879	5.41	0.88	78	.990	5.61	0.94	-1.403	153	.163	
starting wage	77	-	1230.39	451.86	78	-	1055.77	295.64	2.845	152	.005	.459
average wage	77	-	1498.55	531.91	78	-	1314.03	361.49	2.513	151	.013	.406

Note: N – number, ω – reliability (omega), M – mean, SD – standard deviation, t – t-test value, df – degree of freedom, p – significance, d – Cohen's d

#### Task 1: results

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		me	n applicants			wom	en applicants					
CV	Ν	ω	М	SD	Ν	ω	Μ	SD	t	df	р	d
best competence	77	.910	5.74	0.93	78	.992	5.73	1.08	0.059	153	.953	
hire-ability	77	.893	5.51	1.08	78	.987	5.67	1.02	-0.949	153	.344	
likeability	77	.879	5.41	0.88	78	.990	5.61	0.94	-1.403	153	.163	
starting wage	77	-	1230.39	451.86	78	-	1055.77	295.64	2.845	152	.005	.459
average wage	> 77	-	1498.55	531.91	78	-	1314.03	361.49	2.513	151	.013	.406

Note: N – number, ω – reliability (omega), M – mean, SD – standard deviation, t – t-test value, df – degree of freedom, p – significance, d – Cohen's d

#### Task 1: results

Table 2 Descriptive statistics of measured variables and differences between assessment of men and women applicants

		m	en applicants			wom	nen applicants					
CV	Ν	ω	М	SD	Ν	ω	М	SD	t	df	р	d
best competence	77	.910	5.74	0.93	78	.992	5.73	1.08	0.059	153	.953	
hir <u>e-abi</u> lity	77	.893	5.51	1.08	78	.987	5.67	1.02	-0.949	153	.344	
likeability	77	.879	5.41	0.88	78	.990	5.61	0.94	-1.403	153	.163	
starting wage	77	-	1230.39	451.86	78	-	1055.77	295.64	2.845	152	.005	.459
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Note: N – number, ω – reliability (omega), M – mean, SD – standard deviation, t – t-test value, df – degree of freedom, p – significance, d – Cohen's d

# Task 1: results

Table 2 Descriptive statistics of measured variables and differences between assessment of men and women applicants

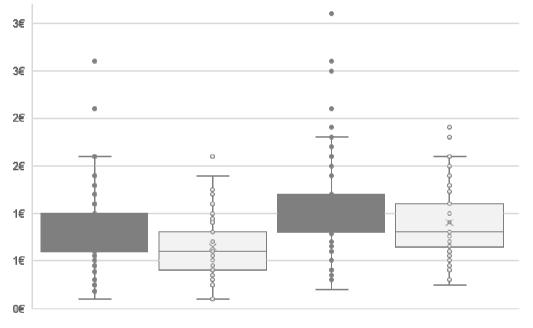
			n	nen applicants			wom	en applicants					
CV		N	ω	М	SD	N	ω	М	SD	t	df	р	d
best	competence	77	.910	5.74	0.93	78	.992	5.73	1.08	0.059	153	.953	
	hire-ability	77	.893	5.51	1.08	78	.987	5.67	1.02	-0.949	153	.344	
	likeability	77	.879	5.41	0.88	78	.990	5.61	0.94	-1.403	153	.163	
	starting wage	77	-	1230.39	451.86	78	-	1055.77	295.64	2.845	152	.005	.459
	average wage	77	-	1498.55	531.91	78	-	1314.03	361.49	2.513	151	.013	.406
	Note: N – number,	, ω – relia	bility (om	iega), M – mean, S	D – standard	deviatio	n, t – t-test	value, df – deg	ree of freedor	n, p – signific	ance, d – Co	ohen's d	
							Medium and least competent men						

Medium and least competent men significantly less likeable than identical women

# Task 1: results

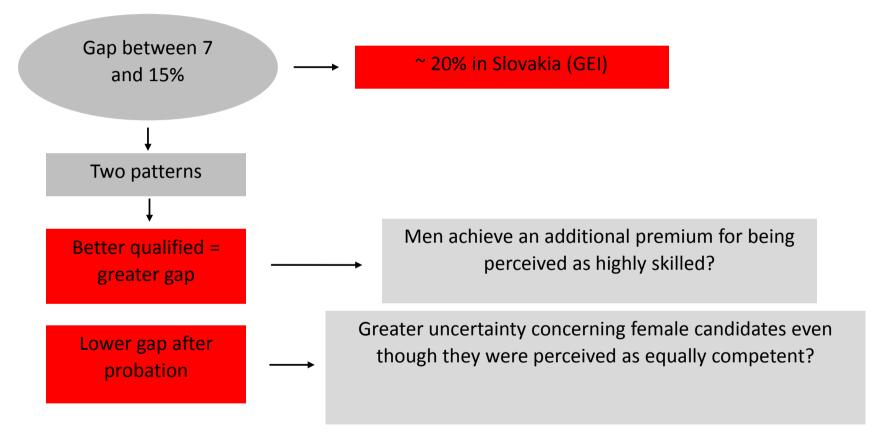
	women a	pplicants	men ap	plicants
	hire-ability	likeability	hire-ability	likeability
competence	.875**	.817**	.842**	.729**
hire-ability		.870**		.756**

### Task 1: results

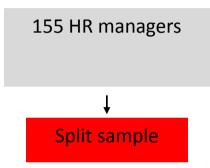


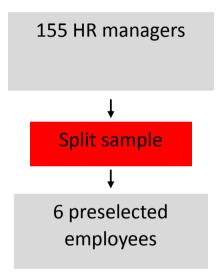


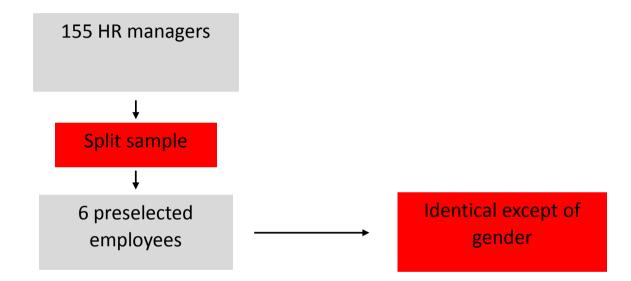


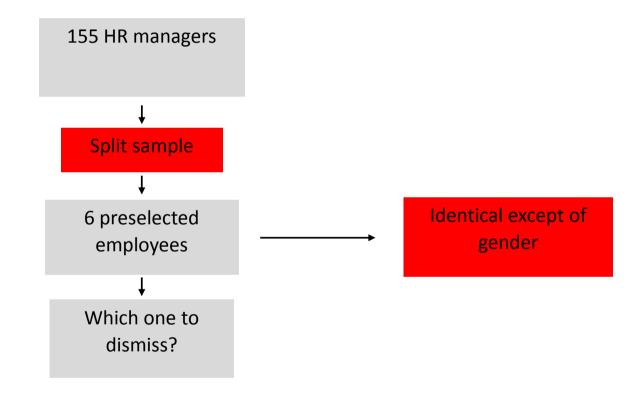


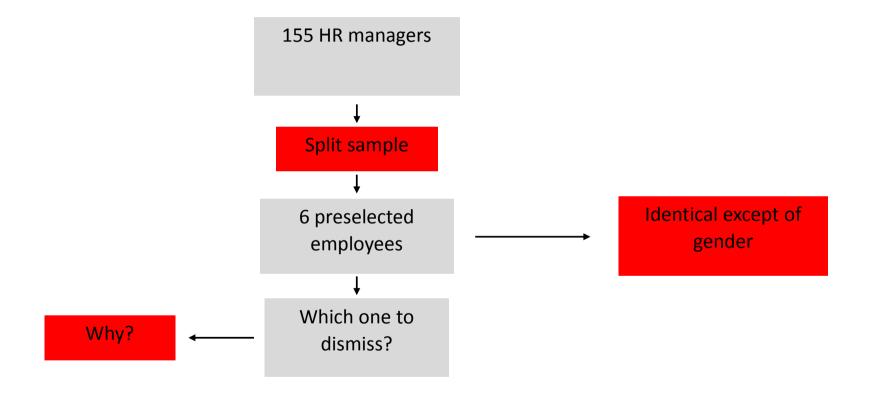
155 HR managers



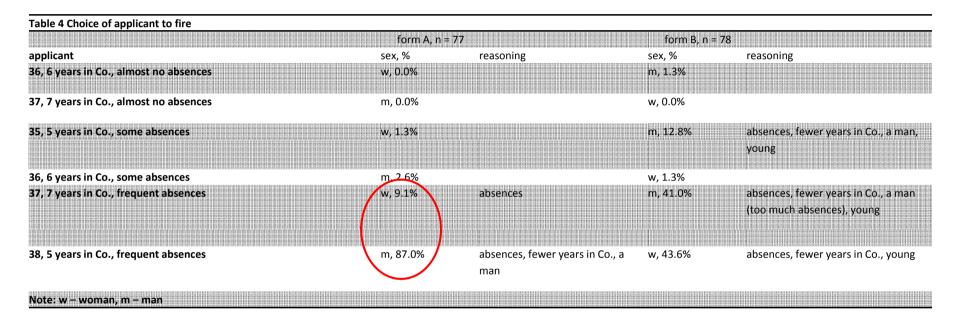


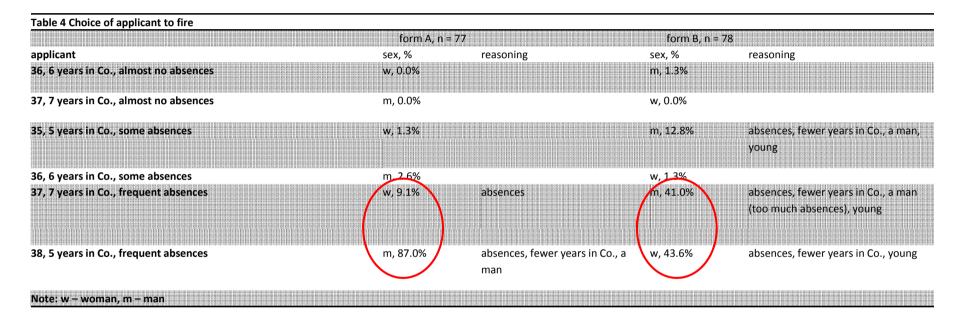


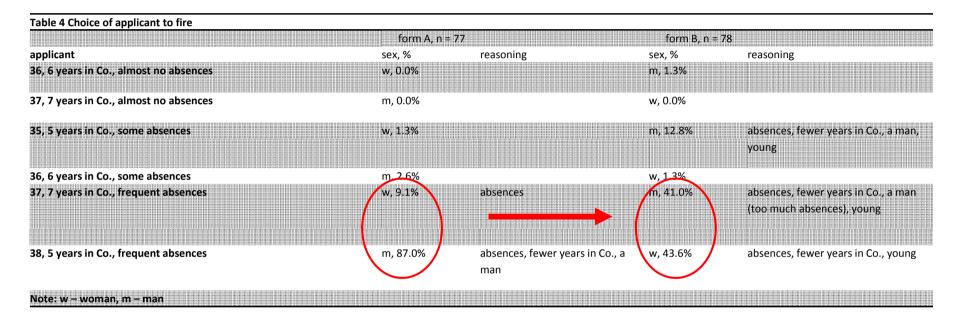


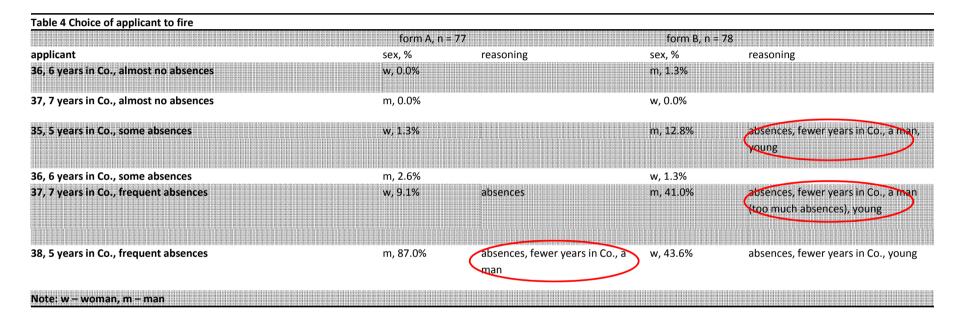


	form A, n =	77	form B, n =	78
pplicant	sex, %	reasoning	sex, %	reasoning
6, 6 years in Co., almost no absences	w, 0.0%		m, 1.3%	
7, 7 years in Co., almost no absences	m, 0.0%	u dood na ma daaraa markaadaa markaadaa markaadaa markaadaa marka marka markaadaa markaadaa markaadaa markaada	w, 0.0%	Nederleth (Freder Freder Berlinden der Gesten der Berlinden der Freder Berlinden der Freder Berlinden der Ber
5, 5 years in Co., some absences	w, 1.3%		m, 12.8%	absences, fewer years in Co., a man
				young
6, 6 years in Co., some absences	m, 2.6%		w, 1.3%	
7, 7 years in Co., frequent absences	w, 9.1%	absences	m, 41.0%	absences, fewer years in Co., a man
				(too much absences), young
8, 5 years in Co., frequent absences	m, 87.0%	absences, fewer years in Co., a	w, 43.6%	absences, fewer years in Co., young
o, o years in col, nequent absences	11, 07.070	man	W, <del>4</del> 3.070	ussences, rewer years in co., young









# Conclusions



