Agile Mindset, Technological vs. Non-technological Mindset, and Gender: Are They Related?

Wioleta Kucharska and Maciej Kucharski
Gdansk University of Technology – Gdansk TECH, Fahrenheit Universities Association, Gdańsk, Poland

wioleta.kucharska@pg.edu.pl

Abstract: This study examined the impact of gender on the relationship between employees' agile and non-agile mindsets and organisational agility. It also considers the tech and non-tech focus as a potential moderator. The initial sample of 209 knowledge workers and the replication sample of 401 knowledge workers were applied to analyse the above relations using OLS regression by SPSS PROCES. The results showed that the most critical factor influencing organisational agility is the agile mindset of employees. Furthermore, the female effect is much stronger than that observed for men in the specialists' group. For the managers group, only the men's effect is significant, and this effect is substantial. Furthermore, results show that while an agile mindset supports organisational agility, a non-agile mindset jeopardises it. The negative impact of a non-agile mindset on organisational agility is confirmed for men with tech and non-tech-oriented mindsets. However, this effect is stronger for non-technological ones. This means that technology works as a kind of mind stimulus. The technological focus is the agility driver, but it does not determine an agile mindset. The direct implication of this research for organisations aiming to be agile is to hire agile-mindset staff, care about agile-minded staff, and avoid employing people with a non-agile mindset. Regarding gender, this study revealed that female IT specialists are more agile than their male counterparts. However, male managers profoundly impact organisational agility. We still do not know how female managers impact agility in the IT sector. To find out, we need to employ a purposive sample. It is because neither a random nor a convenient sample reflecting the IT employee population would work for this purpose.

Keywords: Gender, Position, Agile Mindset, Agile Organisation, Knowledge Workers, IT Sector, Technological Mindset, Non-technological Mindset

1. Introduction

In today's unpredictable and dynamic business environment, all businesses need to be increasingly agile. Implementing agile work methods helps organisations improve their smooth responsiveness to market changes (Ajgaonkar et al., 2022; Cyfert et al., 2022; Harvey and De Meuse, 2021; Kettunen et al., 2022; Kucharska et al., 2024 c-d; Pulakos et al., 2019; Stei et al., 2024; Ulrich and Yeung, 2019). For an agile organisation, both agile working methods and the agile mindset of employees matter for sustaining organisational competitiveness, growth, and development (Eilers et al., 2022; Magistretti and Trabucchi, 2024). Furthermore, Kucharska et al. (2024a-b) claimed that leaders' agile mindsets matter the most for organisational agility. Therefore, this study considers the relationship between agile and non-agile employees by the prism of gender moderated per position. The research question leading this study is how agile and non-agile mindset employees impact the organisation's agility. Does this impact differ by gender and position?

Women's leadership is currently under high research interest (Edacherian et al., 2024; Halrynjo and Teigen, 2024; Ingersoll, 2024). This is because women are often stereotyped in the labor market and are largely underrepresented in organisational leadership roles (Baker, 2014; Cook and Glass, 2014; Seo et al., 2017; Schlamp et al., 2019), especially in technology-driven sectors (Lechman and Popowska, 2020, 2022). This situation provoked the inclusion of the tech and non-tech mindset focus as a factor potentially impactful for the relation between agile and non-agile employees. However, Kucharska and Kucharski (2023) recently showed that technological and non-technological mindsets adapt equally if they operate in a consistent working environment. That would suggest that agility as an adaptability proxy is not related to a technological mindset. Furthermore, Ajgaonkar et al. (2022) and Kucharska and Karwowska (2025) see agility as a very close construct to dynamic capabilities and change adaptability, and they also expose agility as technology-unrelated. Nevertheless, at the same time, technology is often introduced as an agility driver (Jafari-Sadeghi et al., 2022; Motwani and Katatria, 2024; Rubino et al., 2024). This altogether provokes questions about whether the agile mindset is related to the technological mindset, or it is not. It is particularly interesting because agility is often perceived as a domain of the IT sector. To sum up, we want to determine if the impact of employees' agile and technological mindsets on organisations is somehow related to employees' gender and position. We know that women's perceptions of various organisational issues often depend on their positions (Karwowska and Kucharska, 2024; Khan and Rubel, 2024; Kucharska and Kopytko, 2024). So, we aim to verify first if the agile and technological mindsets are related and, second, to determine if these mindsets are somehow related to gender or gender through the position.

2. Literature Review & Conceptual Framework

Agile mindset and agile organisation. Agile organisations constantly learn collectively and respond quickly to changes, always bent on delivering value to customers and stakeholders. According to the trait theory, the most critical factor determining the effectiveness of the leadership process is the traits of the leader (Akkaya, 2020; Akkaya and Bagieńska, 2022). Therefore, the agile leadership concept refers to the adaptability skills of leaders that enable them to respond effectively to changing business circumstances and, in doing so, support their organisations in adapting smoothly. For an agile organisation, the agile mindset of employees matters to sustain their competitiveness, growth, and development, and this way determines organisation agility (Eilers et al., 2022; Kucharska et al. (2024a-b); Magistretti and Trabucchi, 2024). Therefore, this study focuses on the impact of employees' agile- and non-agile mindsets on an organisation's agility.

Agile mindset and gender. Zahoor et al. (2024) claim that gender diversity is a critical boundary condition that influences the effect of strategic agility. So, if gender diversity matters for agility, it suggests that gender perception of agility differs somehow and, this way, also somehow contributes to agility. So, the question is: how? Moreover, Akkaya and Bagińska (2024) suggested that gender matters for employees' agility and influences team effectiveness, specifically examining the impact of women agile leaders on a team. However, these authors did not compare the impact of agile women to those of agile men. Therefore, on the one hand, their study does not allow us to assume that agility and gender are somehow related; on the other hand, it provokes such a study. So, our research aims to compare the impact of a male and female agile mindset employee and a non-agile mindset employee on organisational agility (model I).

Gender and position. Some recent studies revealed that some organisational behaviors, e.g., the double bias of mistakes, are gender-related but do not directly, but indirectly through position (Karwowska and Kucharska, 2024; Khan and Rubel, 2024; Kucharska and Kopytko, 2024; Kucharska and Szeluga-Romańska, 2025). Therefore, it is possible that an agile mindset can also be indirectly related to organisational agility through the prism of the position held by the employee (model II).

Agile mindset and technology. Technology is often seen as an agility driver (Jafari-Sadeghi et al., 2022; Motwani and Katatria, 2024; Overby et al., 2006; Rubino et al., 2024). Agility is reflected in the adaptability. Kucharska and Kucharski (2023) recently exposed that technological and non-technological mindsets adapt equally if they operate in a consistent working environment (consequently, technology and non-technology dominated). This raises questions about whether the agile mindset is related to the technological mindset, which is interesting because agility is often perceived as a domain of the IT sector (model III). Furthermore, we also want to find out if the agile and technological mindsets somehow relate to gender (model IV).

Based on the above, the following theoretical models are investigated:

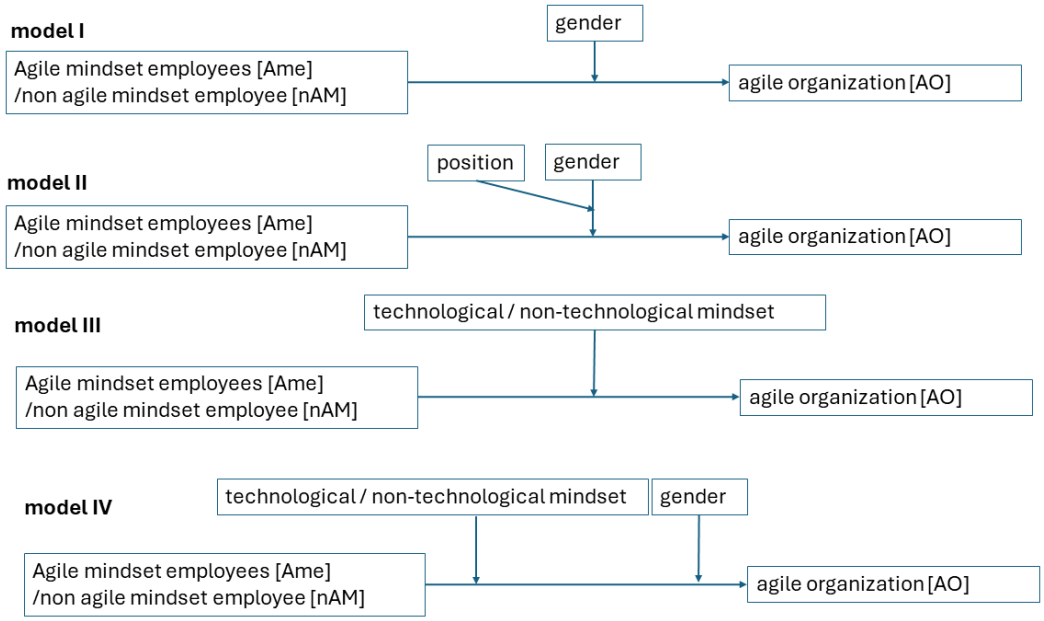

Figure 1: Theoretical model

Table 1: Scales and their sources

Scale	Statements	Reliabilities
Agile organisation [AO] (Kucharska et al., 2024b)	a. an organisation acts smoothly as a comprehensive, adaptive system b. adapts to changes quickly and comprehensively (both conditions met) c. offers stable working rules and high operational agility (both conditions met) d. an organisation constantly learns at all levels of the organisation e. business context change drives an organisational change f. an organisation demonstrates advantage-seeking orientation g. an organisation demonstrates constant development orientation h. agile mindset people are in an organisation recognised and empowered i. organisation members think and act agilely (both conditions met) j. an organisation leaders are agile	INITIAL/REPLICATION SAMPLE Cronbach alpha=.958/.967
Agile mindset employee [AMe] (Kucharska et al., 2024b)	a. adapt quickly b. usually achieve their aims c. they learn, un-learn, and re-learn smoothly d. they can work in unpredictable environments (they accept uncertainty) e. they act dynamically f. they likely accept a challenge if they see it as an opportunity g. they are passionate, enthusiastic, and engaged at work (all conditions met) h. they can follow schemes but also can act creatively beyond schemes (both conditions met) i. they are open to change j. they see change as an opportunity	INITIAL/REPLICATION SAMPLE Cronbach alpha=.947/.940
Non-Agile mindset employee [nAM] (Kucharska et al., 2024b)	a. face troubles with change adaptability b. face troubles with task accomplishment c. they are not likely to learn new working rules or methods d. they do not like uncertainty (they like routines) e. they do not like changes f. they avoid challenges g. they do not accept any time pressure h. they are working without enthusiasm or passion i. they need to control everything to feel safe and perform j. they prefer to "keep things as they are" instead of learning something new	INITIAL/REPLICATION SAMPLE Cronbach alpha=.953/.945

Table 2: Factor analysis

Cross-loadings Matrix Initial Sample			
	Factor		
	1	*2*	*3*
1a	.932		
1b	.896		
1c	.875		
1d	.837		
1e	.727		
1f	.722		
1g	.809		
1h	.821		
1i	.910		
1j	.885		
3a		.760	
3b		.710	
3c		.710	
3d		.717	
3e		.746	
3g		.738	
3h		.857	
3i		.793	
3j		.713	
4a			.763
4b			.802
4c			.821
4d			.753
4e			.819
4f			.817
4g			.868
4h			.825
4i			.833
4j			.812
ss-loadings matrix replication sample			
	Factor		
	1	2	3
1a	.875		
1b	.891		
1c	.846		
1d	.869		
1e	.807		
1f	.782		
1g	.865		
1h	.869		
1i	.935		
1j	.903		
3a		.765	
3b		.832	
3c		.724	
3d		.801	
3e		.778	
3g		.808	
3h		.703	
3i		.659	
3j		.804	
4a			.731
4b			.616
4c			.715
4d			.729
4e			.737
4f			.752
4g			.873
4h			.853
4i			.883
4j			.761

3. Methodology

Sampling method, sample size, and structure: The study targeted Polish knowledge workers, and the convenience sampling method was applied. Data collection took place in June 2024 (initial sample) and September 2024 (replication sample). The sample size is: INITIAL SAMPLE 209 cases, comprising 35% female and 65% male participants; 78% represented the IT sector, and 23% were "other" sectors. They hold positions: 69% specialists, 31% managers. They represent the companies characterised by the following sizes: 30% small and micro, 10% middle size, and 60% big organisations. REPLICATION SAMPLE 401 cases comprised 37% female, 63% male, 60% represented the IT sector, and 40% were "other" sectors. They hold positions: 43% specialists and 57% managers. They represent the companies characterised by the following sizes: 12% small and micro, 22% middle size, and 66% big organisations.

Measures & sample quality (INITIAL/REP. SAMPLE): KMO-. 930/920, total variance extracted 64%/70%; Cronbach alpha>.93. Since all constructs were measured using a 7-point Likert scale, the composite variables were created through median value. All measurement scales' sources and their statements are given in Table 1. Table 2 shows a cross-loading analysis to verify if the constructs' measures do not overlap.

Method of analysis: OLS regression by SPSS PROCESS ver. 26.

4. Results

The impact of non-agile mindset employees on agile organisations analysed through gender as a moderator was noted as insignificant. On the other hand, the impact of agile mindset employees on agile organisations analysed through gender as a moderator was the opposite: significant. Figure 2 below illustrates the significant result.

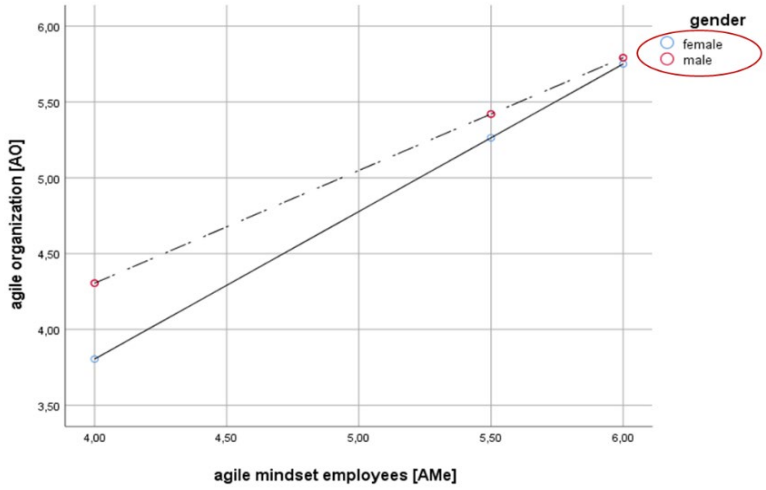

Figure 2: Agile mindset employees' [Ame] impact on organisational agility moderated through gender (theoretical model I)

Note: The significant effect is circled

The more agile the employee's mindset, the stronger the impact on organisational agility. This relation is true for women and men. Men's starting impact on agility is more substantial than women's, but for the most agile women, their impact on organisational agility is equal to men's.

```
***************** PROCESS Procedure for SPSS Version 4.2 *****************
      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
**************************************************************************
Model  : 1   Y  : AO   X  : AMe    W  : gender   Sample Size:  209
**************************************************************************
OUTCOME VARIABLE:  AO
Model Summary    R      R-sq      MSE       F          df1       df2       p
                          ,7731     ,5977     ,6490   97,0481    3,0000  196,0000    ,0000
          coeff      se         t         p       LLCI      ULCI
constant   -1,5055     ,9284    -1,6217     ,1065    -3,3363     ,3254
AMe         1,2024     ,1678     7,1666     ,0000     ,8715     1,5333
```

gender 1,4192 ,5346 2,6546 ,0086 ,3648 2,4735
Int_1 -,2296 ,0971 -2,3650 ,0190 -,4211 -,0381
Product terms key: Int_1 : AMe x gender (1- female; 2- male)
Test(s) of highest order unconditional interaction(s):
R2-chng F df1 df2 p
X*W ,0115 5,5930 1,0000 196,0000 ,0190
Conditional effects of the focal predictor at values of the moderator(s):

gender	Effect	se	t	p	LLCI	ULCI
1,0000	,9728	,0800	12,1578	,0000	,8150	1,1306
2,0000	,7432	,0592	12,5445	,0000	,6263	,8600
2,0000	,7432	,0592	12,5445	,0000	,6263	,8600

Level of confidence for all confidence intervals in output: 95,0000

To strengthen the analysis, we added the position factor as a moderator of the observed gender effect. As a result, we found a significant effect for specialists (women and men). Furthermore, the female effect is much stronger than that observed for men in the specialists' group. For the managers group, only the men's effect is significant, and this effect is strong.

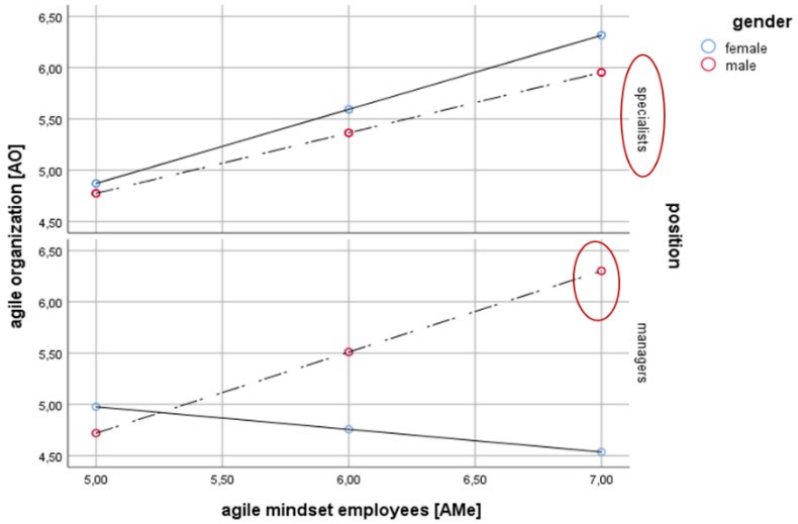

Figure 3: Agile mindset employees' [Ame] impact on organisational agility through gender and position (theoretical model II)

Note: The significant effect is circled

****************** PROCESS Procedure for SPSS Version 4.2 ******************
Written by Andrew F. Hayes, Ph.D. www.afhayes.com
****
Model : 3 Y : AM X : AMe W : gender Z : position Sample Size: 209
****
OUTCOME VARIABLE: AO,
Model Summary R R-sq MSE F df1 df2 p
,4861 ,2363 1,3029 8,4862 7,0000 192,0000 ,0000

	coeff	se	t	p	LLCI	ULCI
constant	-4,6529	3,5878	-1,2969	,1962	-11,7294	2,4237
AMe	1,8978	,6037	3,1438	,0019	,7071	3,0884
gender	3,5020	2,0121	1,7405	,0834	-,4667	7,4706
Int_1	-,7039	,3373	-2,0869	,0382	-1,3692	-,0386
position	5,3483	1,8602	2,8752	,0045	1,6793	9,0173
Int_2	-1,0432	,3083	-3,3840	,0009	-1,6512	-,4351
Int_3	-2,9386	1,0683	-2,7508	,0065	-5,0457	-,8316
Int_4	**,5718**	**,1786**	**3,2019**	**,0016**	**,2196**	**,9240**

Product terms key:
Int_1 : AMe x gender

Int_2 : AMe x position
Int_3 : gender x position
Int_4 : AMe x gender x position
Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W*Z	**,0408**	**10,2524**	**1,0000**	**192,0000**	**,0016**

Focal predict: AMe (X); Mod var: gender(W) (1- female; 2- male);Mod var: position (Z) (1-specialist; 2-manager)
Conditional effects of the focal predictor at values of the moderator(s):

gender	position	Effect	se	t	p	LLCI	ULCI
1,0000	1,0000	,7225	,1757	4,1120	,0001	,3759	1,0691
1,0000	1,0000	,7225	,1757	4,1120	,0001	,3759	1,0691
1,0000	2,0000	-,2203	,2133	-1,0328	**,3030**	-,6409	,2004
2,0000	1,0000	,5904	,1184	4,9873	,0000	,3569	,8238
2,0000	1,0000	,5904	,1184	4,9873	,0000	,3569	,8238
2,0000	2,0000	,7911	,1845	4,2872	,0000	,4272	1,1551
2,0000	1,0000	,5904	,1184	4,9873	,0000	,3569	,8238
2,0000	1,0000	,5904	,1184	4,9873	,0000	,3569	,8238
2,0000	2,0000	,7911	,1845	4,2872	,0000	,4272	1,1551

Level of confidence for all confidence intervals in output: 95,0000

The following research stage was to verify the moderating power of the mindset (technological vs. non-technological) on the relationship in question.

Results showed first that for agile mindset employees neither technological nor non-technological mindset moderation is significant. This means that for agile mindset employees, technological or non-technological mindset does not alter their positive impact on organisational agility. However, for non-agile mindset employees, such moderation is significant, and for those with non–technological mindset, this impact is negative.

Whereas for non-agile mindset, such moderation is significant for non-technological mindset employees, and this impact is negative. Precisely, the more non-agile mindset, the more negative is its impact on organisational agility. This means that agile organisations, if possible, should avoid hiring employees with a non-agile mindset. Below, Figure 3 visualises this effect.

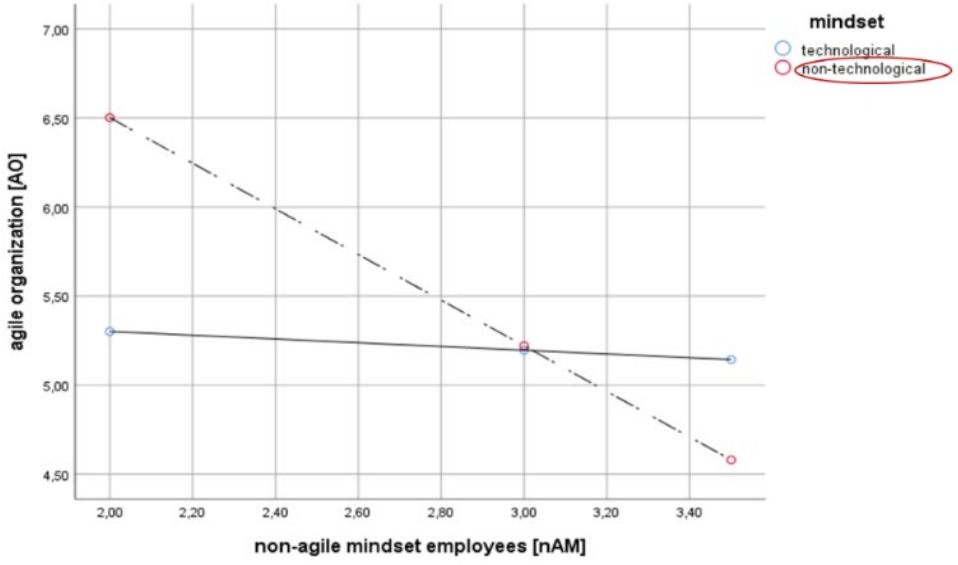

Figure 4: Non-agile mindset employees [nAM] impact on organisational agility moderated through non-tech oriented mindset (theoretical model III)

Note: The significant effect is circled
Run MATRIX procedure:
***************** PROCESS Procedure for SPSS Version 4.2 *****************
Written by Andrew F. Hayes, Ph.D. www.afhayes.com

```
**************************************************************************
Model  : 1    Y : AO    X : nAM    W  : t-nt mindset   Sample Size:  209
**************************************************************************
OUTCOME VARIABLE: AO
Model Summary        R      R-sq       MSE         F       df1       df2         p
                  ,2450     ,0600    1,5709    4,1709    3,0000  196,0000     ,0069
          coeff        se        t        p       LLCI      ULCI
constant    1,9591    1,5418    1,2706     ,2054   -1,0816    4,9997
AO          1,0706     ,4482    2,3888     ,0179     ,1867    1,9545
mindset     3,5523    1,4718    2,4135     ,0167     ,6496    6,4550
Int_1      -1,1758     ,4192   -2,8052     ,0055   -2,0025    -,3492
Product terms key:  Int_1    :       nAM      x       t-nt mindset
Test(s) of highest order unconditional interaction(s):
      R2-chng       F       df1       df2         p
X*W     ,0377    7,8690    1,0000  196,0000     ,0055
   Focal predict: AOm      (X)  Mod var: mindset  (W)
Conditional effects of the focal predictor at values of the moderator(s):
 t-nt mindset     Effect      se         t         p       LLCI      ULCI
    1,0000     -,1052     ,0916    -1,1489     ,2520     -,2859     ,0754
    2,0000    -1,2811     ,4090    -3,1319     ,0020    -2,0877    -,4744
Data for visualising the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.
************************ ANALYSIS NOTES AND ERRORS ************************
Level of confidence for all confidence intervals in output:  95,0000
Next, this analysis was deepened through additional moderation through gender.
```

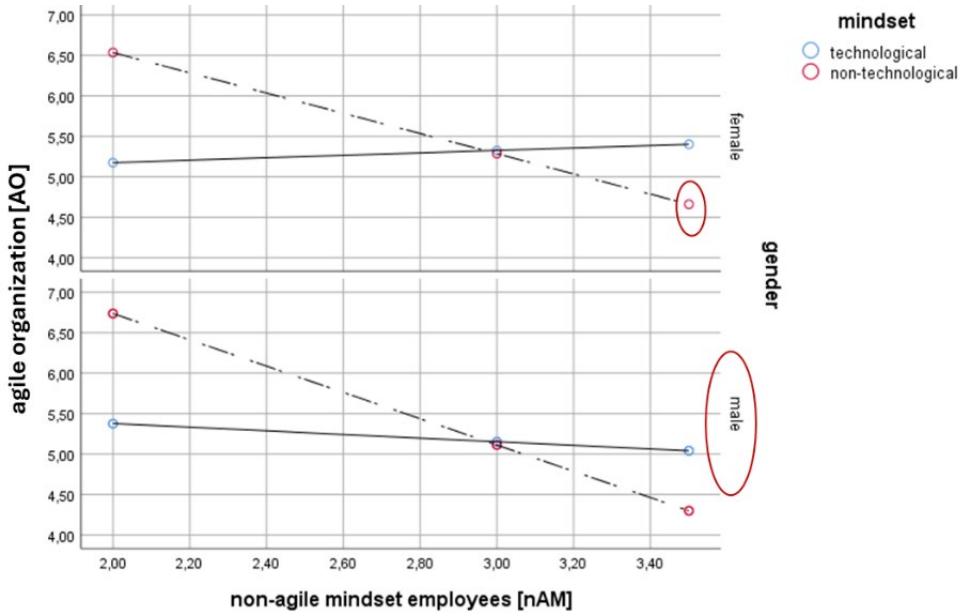

Figure 5: Non-agile mindset employees [nAM] impact on organisational agility moderated through non-tech oriented mindset moderated through gender (theoretical model IV)

Note: The significant effect is circled.

The negative effect of the non-agile mindset on organisational agility is confirmed for men with both tech and non-tech-oriented mindsets. However, it is stronger for non-technological ones. It means that technology works as a kind of mind stimulus. To sum up, technology can be seen as the agility driver of an organisation, but it is not a factor that determines the agile mindset. For the female group, the negative effect of the non-agile mindset on organisational agility is confirmed for women with a non-tech-oriented mindset. However, this effect is noted as insignificant for women with tech-oriented mindsets.

```
***************** PROCESS Procedure for SPSS Version 4.2 *****************
```

```
      Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
  **************************************************************************
Model  : 2    Y : AO    X : nAM    W : mindset     Z : gender    Sample Size:  209
**************************************************************************
OUTCOME VARIABLE:AO Model Summary
       R       R-sq        MSE         F       df1       df2         p
    ,2928     ,0857     1,5437     3,6370    5,0000   194,0000     ,0036
Model
          coeff         se         t         p       LLCI      ULCI
constant    -,2434     1,8045    -,1349     ,8929   -3,8024    3,3156
nAM         1,9280     ,5788     3,3310     ,0010     ,7865    3,0695
mindset     4,1628     1,4843    2,8045     ,0056     1,2353    7,0902
Int_1      -1,4013     ,4282    -3,2722     ,0013    -2,2459    -,5567
gender      ,9526      ,4371     2,1794     ,0305     ,0905     1,8146
Int_2       -,3753     ,1608    -2,3334     ,0207    -,6925     -,0581
Product terms key:  Int_1    :       nAM     x       mindset;  Int_2: nAM  x  gender
Test(s) of highest order unconditional interaction(s):
        R2-chng      F        df1        df2         p
X*W      ,0505    10,7075     1,0000   194,0000     ,0013
X*Z      ,0257     5,4447     1,0000   194,0000     ,0207
BOTH     ,0630     6,6800     2,0000   194,0000     ,0016
   Focal predict: AO      (X)
        Mod var: mindset  (W) (1-technological 2- npn technological)
        Mod var: gender   (Z) (1-female 2-male)
Conditional effects of the focal predictor at values of the moderator(s):
   mindset    gender     Effect        se         t         p       LLCI      ULCI
    1,0000    1,0000     ,1515     ,1429     1,0600     ,2905    -,1304     ,4333
    1,0000    2,0000     -,2238    ,1041    -2,1503     ,0328    -,4291    -,0185
    1,0000    2,0000     -,2238    ,1041    -2,1503     ,0328    -,4291    -,0185
    2,0000    1,0000    -1,2498     ,4067    -3,0733     ,0024    -2,0519    -,4478
    2,0000    2,0000    -1,6251     ,4328    -3,7552     ,0002    -2,4786    -,7716
    2,0000    2,0000    -1,6251     ,4328    -3,7552     ,0002    -2,4786    -,7716
Level of confidence for all confidence intervals in output:  95,0000
```

4.1 Females Managers Group Underrepresentation Problem in the Initial Sample - Study Replication

Since all non-significant results were obtained for female sub-samples with technological mindsets or holding managerial positions (IT sector), the assumption has been made that the 209-case sample is probably too small. Therefore, a two-times bigger sample was collected with the hope that 401 cases would allow us to verify all the findings through the study replication based on the bigger sample. In fact, the replication study results confirmed the findings noted for the initial sample. Still, results obtained for female sub-samples with technological mindsets or holding managerial positions were non-significant. It leads us to conclude that the issue is not the sample size or structure but the gender-biased reality the sample reflects. In fact, both samples (initial and replication) reflect gender inequality. It is a fact that women are underrepresented in managerial positions (Hideg and Shen, 2019; Orbach, 2017), especially in IT. So, to examine the impact of agile mindset on agile organisation per gender in IT, a purposive sample is needed. It is because neither a random nor a convenient sample reflecting the IT employee population would not work for examining the impact of an agile mindset on agile organisation per gender in IT. To do so, a purposive sample is needed. The replication results based on 401 cases are presented below (Figure 5).

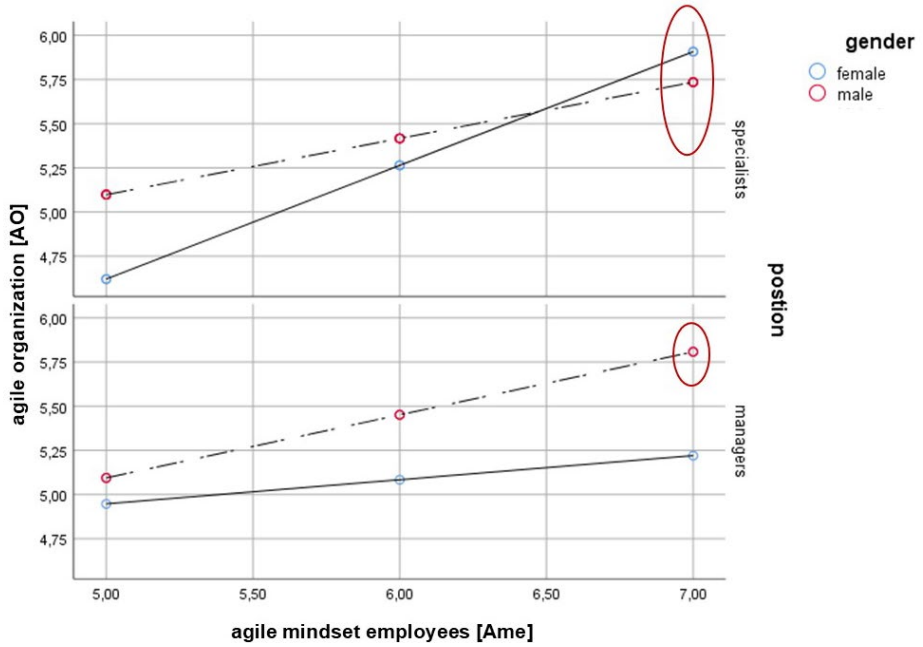

Figure 5: Agile mindset employees' [Ame] impact on organisational agility through gender and position (theoretical model II) – replication based on n=401 cases sample size.

Note: The significant effect is circled

********** PROCESS Procedure for SPSS Version 4.2 **********
Written by Andrew F. Hayes, Ph.D. www.afhayes.com
****

Model : 3 Y : AM X : AMe W : gender Z : position **Sample Size: 401**

****

OUTCOME VARIABLE: AO,

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,2961	,09	1,8029	5,3862	7,0000	392,0000	,0000

	coeff	se	t	p	LLCI	ULCI
constant	-6,6200	3,5790	-1,8496	,0651	-13,6565	,4165
AMe	2,0211	,6093	3,3172	,0010	,8232	3,2189
gender	5,1610	2,0326	2,5391	,0115	1,1649	9,1572
Int_1	-,8705	,3449	-2,5241	,0120	-1,5486	-,1925
postion	5,9196	2,0208	2,9294	,0036	1,9467	9,8926
Int_2	-1,0525	,3381	-3,1133	,0020	-1,7171	-,3878
Int_3	-3,0580	1,1608	-2,6344	,0088	-5,3401	-,7758
Int_4	,5455	,1949	2,7991	**,0054**	,1623	,9286

Product terms key:

Int_1	:	AMe	x	gender	
Int_2	:	AMe	x	position	
Int_3	:	gender	x	position	
Int_4	**:**	AMe	**x**	**gender**	**x position**

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W*Z	**,0408**	**10,2524**	**1,0000**	**192,0000**	**,0016**

Focal predict: AMe (X); Mod var: gender(W) (1- female; 2- male);Mod var: position (Z) (1-specialist; 2-manager)

Conditional effects of the focal predictor at values of the moderator(s):

gender	postion	Effect	se	t	p	LLCI	ULCI
1,0000	1,0000	,6435	,1552	4,1454	,0000	,3383	,9487
1,0000	1,0000	,6435	,1552	4,1454	,0000	,3383	,9487
1,0000	2,0000	,1365	,1134	1,2041	**,2293**	-,0864	,3594
2,0000	1,0000	,3185	,1105	2,8828	,0042	,1013	,5357

2,0000	1,0000	,3185	,1105	2,8828	,0042	,1013	,5357
2,0000	2,0000	,3569	,1017	3,5079	,0005	,1569	,5570
2,0000	1,0000	,3185	,1105	2,8828	,0042	,1013	,5357
2,0000	1,0000	,3185	,1105	2,8828	,0042	,1013	,5357
2,0000	2,0000	,3569	,1017	3,5079	,0005	,1569	,5570

Level of confidence for all confidence intervals in output: 95,0000

5. Discussion, Limitations, Implications, and Further Studies

The most critical factor influencing organisational agility is the agile mindset of employees. Furthermore, the female effect is much stronger than that observed for men in the specialists' group. For the managers' group, only the men's effect is significant, and this effect is substantial. As much as an agile mindset supports organisational agility, a non-agile mindset jeopardises it. The negative impact of the non-agile mindset on organisational agility is confirmed for men with both tech and non-tech-oriented mindsets. However, it is more vital for non-technological ones, indicating that technology works as a kind of mind stimulus. The technological focus is the agility driver, but it does not determine an agile mindset.

Regarding the female group, the negative effect of the non-agile mindset on organisational agility is confirmed for women with a non-tech-oriented mindset, and it is not significant for women with a tech-oriented mindset. Summarising the gender issue, this study showed that the impact of the female mindset on organisational agility is more potent than that of men in the specialist group. The impact of managers and leaders requires more profound analyses. This is because the effects of female managers were noted as non-significant, whereas those of male managers were reported as positive and strong. Such a result may come from the sample structure, which represents mostly technology-oriented men rather than women (IT sector). Therefore, the results of this study encourage further investigation into agility and gender issues based on the more diverse sample, especially considering this study's findings through the prism of the former studies by Zahoor et al. (2024), who stressed the meaning of gender diversity for strategic agility.

When divided into different categories (man managers/man specialists/female managers/female specialists), the initial and replication sample structure clearly exposes the fact that women managers are underrepresented. However, the issue is not with both sample structures, but with the gender-biased reality these samples reflect. It is a fact that women are underrepresented in managerial positions. So, to examine the impact of an agile mindset on agile organisations per gender in, e.g., the IT sector, a purposive sample is needed. It is because neither a random nor a convenient sample reflecting the IT employee population would work for examining the impact of an agile mindset on an agile organisation per gender. To do so, a purposive sample is needed. Apart from the sample structure, there is another limitation: this study is based on knowledge workers from only one country—Poland. Eliminating stereotypes and blurring the perception of, e.g., entrepreneurship as a typically male-dominated activity occurs at different rates in different cultures (Wasilczuk and Golik, 2025; Yoong, 2023). Mueller et al. (2013) proved in their research that these differences in perception blur in American society, while in Spain, they unfortunately do not. So, observing other countries' views to understand the agility-gender relation through the prism of different national cultures would be beneficial. Equally interesting is the view through more and less feminised/patriarchate societies' lenses.

The key practical implication comes from the positive impact of agile-mindset employees on organisational agility and the negative impact of non-agile-mindset people. The direct implication of this research is to hire and nurture agile-minded staff while avoiding candidates with a non-agile mindset. Moreover, since technology is a kind of agility stimulus, it is reasonable to use technology to enhance an organisation's agility. However, thinking that technology matters more for your organisation's agility than the agile mindsets of employees is naive.

6. Conclusion

This study revealed that female IT specialists are more agile than their male counterparts. However, male managers profoundly impact organisational agility. We still do not know how female managers impact agility in the IT sector. This research sample did not keep a gender balance, so the women managers group was too small to obtain a statistically strong test. This is exciting because the IT sector is generally male-dominated. So, it is interesting to see if banning minority women managers is impactful in IT or if they are perceived as "totems" only. So, to examine the impact of agile mindset on agile organisation per gender in IT, a purposive sample is needed. It is because neither a random nor a convenient sample reflecting the IT employee population would not work for examining the impact of an agile mindset on agile organisation per gender in IT, which is a men-

managed dominant sector. Besides, the studied relation is also interesting from the perspective of sectors other than IT. This study is the first to address the influence of gender, position, and the agile mindset on agile organisations, which is a promising direction for further studies.

References

Ajgaonkar, S., Neelam, N.G. and Wiemann, J. (2022), "Drivers of workforce agility: a dynamic capability perspective," *International Journal of Organizational Analysis*, Vol. 30 No. 4, pp. 951–982. https://doi.org/10.1108/IJOA-11-2020-2507

Akkaya, B. (Ed.) (2020), *Agile Business Leadership Methods for Industry 4.0*, Emerald Publishing Limited, Leeds. https://doi.org/10.1108/978-1-80043-380-920201001

Akkaya, B. and Bagieńska, A. (2022), "The Role of Agile Women Leadership in Achieving Team Effectiveness through Interpersonal Trust for Business Agility," *Sustainability*, Vol. 14 No. 7, article 4070. https://doi.org/10.3390/su14074070

Baker, C. (2014), "Stereotyping and women's roles in leadership positions," *Industrial and Commercial Training*, Vol. 46 No. 6, pp. 332–337. https://doi.org/10.1108/ICT-04-2014-0020

Cook, A. and Glass, C. (2014), "Women and Top Leadership Positions: Towards an Institutional Analysis," *Gender, Work & Organization*, Vol. 21 No.1, pp. 91–103. https://doi.org/10.1111/gwao.12018

Cyfert, S., Szumowski, W., Dyduch, W., Zastempowski, M. and Chudzinski, P. (2022), "The power of moving fast: responsible leadership, psychological empowerment, and workforce agility in energy sector firms, "*Heliyon*, Vol. 8 No. 10, e11188. https://doi.org/10.1016/j.heliyon.2022.e11188

Edacherian, S., Karna, A., Uhlenbruck, K. and Sharma, S. (2024), "Women at Multiple Levels of Strategic Leadership: Evidence of Gender Spillovers," *Corporate Governance: An International Review*. https://doi.org/10.1111/corg.12584

Eilers, K., Peters, C. and Leimeister, J.M. (2022), "Why the agile mindset matters," *Technological Forecasting & Social Change*, 179,121650. https://doi.org/10.1016/j.techfore.2022.121650

Harvey, V.S. and De Meuse, K.P. (Eds.). (2021), *The age of agility: Building learning agile leaders and organizations*, Oxford University Press. https://doi.org/10.1093/oso/9780190085353.001.0001

Halrynjo, S. and Teigen, M. (2024), "Gender quotas for corporate boards: do they lead to more women in senior executive management?," *Gender in Management: An International Journal*, Vol. 39 No. 6, pp. 761–777. https://doi.org/10.1108/GM-03-2023-0096.

Hideg, I. and Shen, W. (2019), "Why still so few? A theoretical model of the role of benevolent sexism and career support in the continued underrepresentation of women in leadership positions," *Journal of Leadership & Organizational Studies*, Vol. 26 No. 3, pp. 287-303.

Ingersoll, A.R., Glass, C. and Cook, A. (2024), "Institutional isomorphic pressures: the impact for women on boards," *Corporate Governance*, Vol. 24 No. 4, pp. 865–881. https://doi.org/10.1108/CG-01-2023-0008

Jafari-Sadeghi, V., Mahdiraji, H.A., Busso, D. and Yahiaoui, D. (2022), "Towards agility in international high-tech SMEs: Exploring key drivers and main outcomes of dynamic capabilities," *Technological Forecasting and Social Change*, *174*, p.121272.

Karwowska, E. and Kucharska, W. (2024), Knowledge Sharing and Dynamic Capabilities. Does Gender Matter?, *Proceedings of the 25th European Conference on Knowledge Management*, Vol. 25 No. 1, pp. 361-368. Veszprém, Hungary. https://doi.org/10.34190/eckm.25.1.2323

Kettunen, P., Gustavsson, T., Laanti, M., Tjernsten, A., Mikkonen, T. and Männistö, T. (2022), Agile Enterprise Transformations: Surveying the Many Facets of Agility for the Hybrid Era, *Proceedings of the 48th Euromicro Conference on Engineering and Advanced Applications*. https://doi.org/10.1109/SEAA56994.2022.00032

Khan, A.D.L.Z. and Rubel, M.R.B. (2024), "Moderating Role of Gender and Job Position in the Relationship between Compensation Practice and Organizational Citizenship Behaviour," *Management and Labour Studies*, p.0258042X231220709.

Kucharska, W., Balcerowski, T., Kucharski, M. and Jussila, J. (2024a), Who is an agile leader? Technological vs. non-technological mindset employees' views, *Proceedings of the 20th European Conference on Management, Leadership and Governance*, Vol. 20 No. 1, pp. 246-254. Lisbon, Portugal. https://doi.org/10.34190/ecmlg.20.1.2960

Kucharska, W., Balcerowski, T., Kucharski, M., Jussila, J. and Laanti, M. (2024b), "Agile leader mindset - why matters most? Polish-Finnish, technological and non-technological perspectives on agile and non-agile mindset employees and organizations", *Heliyon*. Available at SSRN: https://ssrn.com/abstract=4988722

Kucharska, W. and Karwowska, E. (2025), "Company Culture Matters! Knowledge-Driven Companies' Way to Innovations and Sustainability", *Social Science and Humanities Open.* https://doi.org/10.1016/j.ssaho.2024.101268

Kucharska, W., Kucharski, M., Balcerowski, T. and Jussila, J. (2024c), How does the relationship between the mistakes acceptance component of learning culture and tacit knowledge-sharing drive organizational agility? Risk as a moderator, *Proceedings of the 25th European Conference on Knowledge Management*, Vol. 25 No. 1, pp. 397-404. Veszprém, Hungary. https://doi.org/10.34190/eckm.25.1.2367

Kucharska, W., Kucharski, M. and Balcerowski, T. (2024d), The KLC cultures synergy for organizational agility. Trust, risk-taking attitude, and critical thinking as moderators, *Proceedings of the 25th European Conference on Knowledge Management,* Vol. 25 No. 1, pp. 405-413. Veszprém, *Hungary*. https://doi.org/10.34190/eckm.25.1.2307

Kucharska, W. and Kucharski, M. (2023), Technological vs. Non-Technological Mindsets: Learning From Mistakes, and Organizational Change Adaptability to Remote Work, *Proceedings of the 19th European Conference on Management Leadership and Governance*, Vol. 19, pp. 205–214. London, UK. https://doi.org/10.34190/ecmlg.19.1.1902

Kucharska, W. and Kopytko, A. (2024), Gender as a moderator of the double bias of mistakes–knowledge culture and knowledge sharing effects, *Proceedings of the 7th International Conference on Gender Research*, Barcelona, pp. 190–199. https://doi.org/10.34190/icgr.7.1.1994

Kucharska, W. and Szeluga-Romańska, M. (2025), "How can the double bias of mistakes block organizational intelligence? Gender and position analysis," *Gender in Management*.

Lechman, E. and Popowska, M. (2020), "Enhancing women's engagement in economic activities through information and communication technology deployment: evidence from Central–Eastern European countries," *Gender, Technology, and Development*, Vol. 24 No. 3, pp. 314–340. https://doi.org/10.1080/09718524.2020.1824568

Lechman, E. and Popowska, M. (2022), "Overcoming gender bias in the digital economy. Empirical evidence for European countries," *Gender, Technology and Development*, Vol. 26 No. 3, pp. 404–436. https://doi.org/10.1080/09718524.2022.2127064

Magistretti, S. and Trabucchi, D. (2024), "Agile-as-a-tool and agile-as-a-culture: a comprehensive review of agile approaches adopting contingency and configuration theories," *Rev Manag Sci*. https://doi.org/10.1007/s11846-024-00745-1

Motwani, J. and Katatria, A. (2024), "Organization agility: a literature review and research agenda," *International Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-07-2023-0383

Mueller, S.L. and Conway Dato-on, M. (2013), "A cross-cultural study of gender-role orientation and entrepreneurial self-efficacy," *International Entrepreneurship and Management Journal*, Vol. 9, pp. 1-20. Orbach, R. (2017), "Bringing talent off the bench and into the game: The underrepresentation of women in the boardroom," *Fordham Journal of Corporate & Financial Law*, Vol. 22, pp. 203-256.

Overby, E., Bharadwaj, A. and Sambamurthy, V. (2006), "Enterprise agility and the enabling role of information technology", *European Journal of Information Systems*, Vol. 15 No. 2, pp. 120–131. https://doi.org/10.1057/palgrave.ejis.3000600.

Pulakos, E.D., Kantrowitz, T. and Schneider, B. (2019), "What leads to organizational agility: It's not what you think," *Consulting Psychology Journal: Practice and Research*, Vol. 71 No. 4, pp. 305320. https://doi.org/10.1037/cpb0000150

Rubino, M., Maggino, F. and Antonicelli, M. (2024), "Measuring human IT agility and firms' digitalization using POSET: evidence from Italy," *International Journal of Quality & Reliability Management*, Vol. 41 No. 1, pp. 127–149. https://doi.org/10.1108/IJQRM-09-2021-0321

Schlamp, S., Gerpott, F.H. and Voelpel, S.C. (2019), The steep way to the top: Barriers to female leadership in tall hierarchical organizations, in C. Cooper, A.-S. Antoniou and C. Catrell (Eds.): *Women, business and leadership: Gender and organizations* (pp. 315–329), Cheltenham, UK: Edward Elgar Publishing. https://doi.org/10.4337/9781786432711.00027

Seo, G., Huang, W. and Han, S.-H.C. (2017), "Conceptual Review of Underrepresentation of Women in Senior Leadership Positions From a Perspective of Gendered Social Status in the Workplace: Implication for HRD Research and Practice," *Human Resource Development Review*, Vol. 16 No. 1, pp. 35-59. https://doi.org/10.1177/1534484317690063

Stei, G., Rossmann, A. and Szász, L. (2024), "Leveraging organizational knowledge to develop agility and improve performance: the role of ambidexterity," *International Journal of Operations & Production Management*. https://doi.org/10.1108/IJOPM-04-2023-0274

Ulrich, D. and Yeung, A. (2019), "Agility: the new response to dynamic change," *Strategic HR Review*, Vol. 18 No. 4, pp. 161–167. https://doi.org/10.1108/SHR-04-2019-0032

Wasilczuk, J. and Golik, J. (2025), "The Feminist Lenses on Gender Roles in Entrepreneurial Intention and Implementation," *Gender Work & Organization*.

Zahoor, N., Khan, H., Donbesuur, F., Khan, Z. and Rajwani, T. (2024), "Grand challenges and emerging market small and medium enterprises: The role of strategic agility and gender diversity," *Journal of Product Innovation Management*, Vol. 41 No. 2, pp. 473–500. https://doi.org/10.1111/jpim.12661

Yoong, M. (2023), "If your voice isn't accepted, does it mean you stop talking? Exploring a woman leader's reversal of postfeminist confidence discourses", *Gender in Management*, Vol. 38 No. 2, pp. 200-214. https://doi.org/10.1108/GM-06-2022-0207