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# Earnings quality and accruals over company's life cycle

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# Introduction

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- expected decline in the world economy - 7.9% (OECD Economic Outlook, 2020)
- growth of corporate insolvencies in small export-oriented economies of Central Europe - 38% to 20% (Euler Hermes, 2020)
- increasing emphasis on the quality of financial statements and exposing earnings management
- referring to Hastuti, et al (2017), Chen (2016), You & Du (2019), Hribar & Yehuda (2015) profit manipulation changes with the life cycle stage

# Aim of the study

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**The paper examines the impact of the life cycle and country specific factor on the value of discretionary accruals in the tourism sector of the Visegrad countries.**

# Corporate life cycle

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- theories vary depending on the purpose as a managerial view or a financial view of the life cycle
- Damodaran distinguishes 6 phases of the life cycle - Start-up, Young Growth, High Growth, Mature Growth, mature Stable and Decline
- Dickinson model distinguishes life cycle stages according to cash flow patterns - Introduction, Growth, Maturity, Shake-out, Decline
- different financial performance in life cycle stages - different space for profit manipulation

# Model

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$$EM_i = \mu + Country_j + Life\ cycle_k + Country \cdot Lifecycle_{j.k} + \varepsilon_{ijk}$$

- $EM_i$  – earnings management proxy, discretionary accruals by Modified Jones model
- $Country_j$  - qualitative variable {The Czech Republic, Hungary, Poland, Slovakia}
- $Life\ cycle_k$  - qualitative variable {Introduction, Growth, Mature, Shake-out, Decline} defined by Dickinson (2011)
- $Country \cdot Lifecycle_{j.k}$  - interaction term

# Cash flow patterns and corporate life cycle

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Cash flow	Introduction	Growth	Mature	Shake-out			Decline	
Operating	Neg.	Pos.	Pos.	Neg.	Pos.	Neg.	Neg.	Neg.
Investing	Neg.	Neg.	Neg.	Neg.	Pos.	Pos.	Pos.	Pos.
Financing	Pos.	Pos.	Neg.	Neg.	Pos.	Neg.	Pos.	Neg.

# Methods and sample

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- Two-way ANOVA with interaction
- Sample
  - Gross sample – 15 295 companies
  - Net sample (without missing data and outliers) – 3 650 companies
  - Analysed period - 2018
  - Criteria for the selection :
    - Turnover > 200,000 Eur
    - Country affiliation – Visegrad Four
    - Nace Rev. 2 Main sector - Accommodation and food services activities

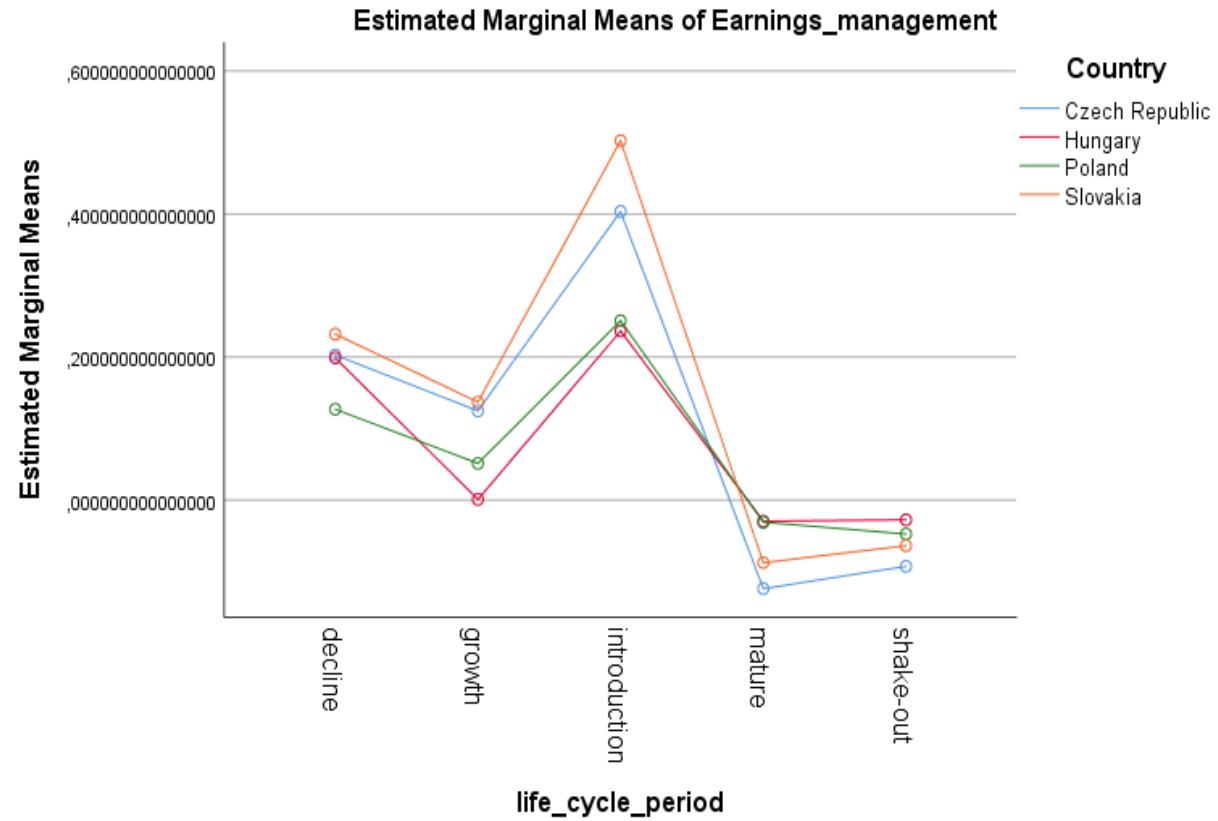
# Results

Factor	Earnings management proxy (discretionary accruals)				
Country	Mean	Median	Std. Deviation	% of Total N	N
the Czech Republic	0,0221	0,0470	0,4588	37,80%	1381
Hungary	0,0054	0,0164	0,1941	4,90%	180
Poland	0,0068	0,0203	0,2434	28,40%	1035
Slovakia	0,0559	0,0812	0,5548	28,90%	1054
Life cycle stage					
introduction	0,4018	0,2889	0,4116	7,60%	278
growth	0,0993	0,0734	0,3228	21,00%	768
mature	-0,0748	0,0102	0,2992	22,80%	832
shake-out	-0,0686	0,0058	0,4805	39,00%	1422
decline	0,1984	0,1331	0,4779	9,60%	350



Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	81,384a	19	4,283	25,802	0,000	0,119
Intercept	10,733	1	10,733	64,653	0,000	0,017
Country	1,997	3	0,666	4,009	0,007	0,003
Life cycle	26,479	4	6,620	39,876	0,000	0,042
Country * Life cycle	5,741	12	0,478	2,882	0,001	0,009
Error	602,612	3630	0,166			
Total	686,600	3650				
Corrected Total	683,996	3649				

a. R Squared = ,119 (Adjusted R Squared = ,114)



➤ the level of earnings management at different life cycle stages varies across countries

Country				
significant difference (post hoc tests)	the Czech Republic	Hungary	Poland	Slovakia
introduction - growth	H1	H1	H1	H1
introduction - mature	H1	H1	H1	H1
introduction - shake-out	H1	H1	H1	H1
introduction - decline	H1	H0	H1	H1
growth - mature	H1	H0	H1	H1
growth - shake-out	H1	H0	H1	H1
growth - decline	H0	H1	H0	H0
mature - shake-out	H0	H0	H0	H0
mature - decline	H1	H1	H1	H1
shake-out - decline	H1	H1	H1	H1

# Discussion

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- significant differences in earnings quality across life cycle
- low operating profit of falling and rising companies – room for earning manipulation
- Hungarian subsample – low difference between quality of profit if operating profit is negative
- the difference in earning quality between life cycle stages is higher than the difference between countries
- the possibility of applying the proxy life cycle in the model of discretionary accruals for companies in Central and Eastern Europe

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for further questions, please, contact at  
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