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Relationships of Analytical, Practical, and Emotional Intelligence with Behavioral Dimensions of Leaders` Performance.

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Introduction

- Three Forms of Intelligence
- Dimensions of Leaders` performance

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Three types of intelligence

Analytical intelligence, often referred to as general mental ability or fluid intelligence, was defined by Cattell (1971) as the capacity to think logically and solve problems in novel situations, independent of acquired knowledge.

Practical intelligence is the ability to solve everyday problems. It is the skillful use of knowledge drawn from experience to adapt to the environment (adapting), change the environment (shaping), or find a new environment in which to act (choosing). (Sternberg, 1989)

Emotional intelligence is the “ability to recognize the meanings of emotions and their relationships, and to reason and solve problems based on them” (Mayer, Caruso, & Salovey, 1999, p. 267).

Goal

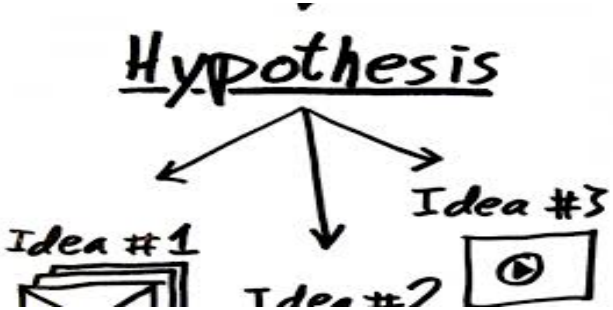
- This study examined the relationships among analytical, practical and emotional intelligence and five dimensions of leader`s behaviors: **Leadership, Initiative, Goal Orientation, Change Orientation, and Employee Development**

hypotheses

- Literature review

In the study we proposed two sets of hypotheses:

- “A” level hypotheses address the relationship of the three types of intelligence to the dimensions and uses zero order correlations, i.e., the typical statistic reported in past research.
- In addition, “B” level hypotheses address the unique contribution of each of the types of intelligence.



Hypotheses A

1A: Leadership is related to analytical, practical, and emotional intelligence.

2A: Initiative is related to analytical and practical intelligence.

3A: Goal orientation is related to analytical, practical, and emotional intelligence.

4A: Change orientation is related to analytical, practical, and emotional intelligence.

5A: Employee development is related to practical and emotional intelligence.

Hypotheses B

1B: Analytical, practical, and emotional intelligence explain unique variance in Leadership.

2B: Analytical and practical intelligence explain unique variance in Initiative.

3B: Analytical, practical, and emotional intelligence explain unique variance in Goal orientation.

4B: Analytical, practical, and emotional intelligence explain unique variance in Change orientation.

5B: Practical and emotional intelligence explain unique variance in Employee development.

Methods

Twenty-three one-day Assessment Center sessions, including

- **tests**:
  - Analytical intelligence - Raven's Progressive Matrices
  - Practical intelligence -Tacit Knowledge Inventory for Managers (TKIM) (Sternberg, adapted by Baczyńska, Terelak)
  - Emotional Intelligence Questionnaire (Solovey, Mayer adapted Matczak).
- **simulations**:
  - leaderless group discussion;
  - assigned role group discussion;
  - 2 one-on-one simulations with
    - (a) employee role player,
    - (b) colleague role player.

Sample

- 163 top level managers from Poland: CEOs, Director of the Board, (N-1 level); 5 years experience as manager
- The age group of participants ranged from 28 to 47 years.
  - The average age of participants was 38.6 (*SD* = 4.75).
  - The participants included **33 women** (M_{age} = 39.1; SD_{age} = *5.16*) and **130 men** (M_{age} = 38.5; SD_{age} = 4.66).

The results for the "A" hypotheses

	N	M SD	2.	3.	4.	5.	6.	7.	8.
1.	Analitical Intelligence	53 3.7	.26**	-.06	.17*	.42**	.37**	.26**	.36**
2.	Practical Intelligence	84 4.1		.41	.12	.30**	.24**	.18*	.25**
3.	Emotional Intelligence	324 43.4			.02	.08	.00	-.00	-.09
4.	Initiative	2.6 .808				.13	.19*	.10	.18*
5.	Leadership	2.4 .84					.47**	.50**	.59**
6.	Goal Orientation	2.7 .67						.50**	.52**
7.	Change Orientation	2.6 .65							.63**
8.	Employee Development	2.2 .86							

The results for the “B” hypotheses.

the hierarchical multiple regression revealed

	variable	% of variantion	dimension	significance
Stage 1	Analitical intelligence	18%	Leadership	significant
Stage 2	Analitical intelligence Practical Intelligence	 4%		significant significant
Stage 3	Analitical intelligence Practical Intelligence Emotional Intelligence			 not significant

The results for the “B” hypotheses.

the hierarchical multiple regression revealed

	variable	% of variantion	dimension	significance
Stage 1	Analitical intelligence	3%	Initiative	significant
Stage 2	Analitical intelligence Practical Intelligence	0,5%		not significant
Stage 3	Analitical intelligence Practical Intelligence Emotional Intelligence			not significant

The results for the “B” hypotheses.

the hierarchical multiple regression revealed

	variable	% of variantion	dimension	significance
Stage 1	Analitical intelligence	13%	Goal Orientation	significant
Stage 2	Analitical intelligence Practical Intelligence	2%		significant
Stage 3	Analitical intelligence Practical Intelligence Emotional Intelligence			not significant

The results for the “B” hypotheses.

the hierarchical multiple regression revealed

	variable	% of variantion	dimension	significance
Stage 1	Analitical intelligence	6%	Change Orientation	significant
Stage 2	Analitical intelligence Practical Intelligence			not significant
Stage 3	Analitical intelligence Practical Intelligence Emotional Intelligence			not significant

The results for the “B” hypotheses.

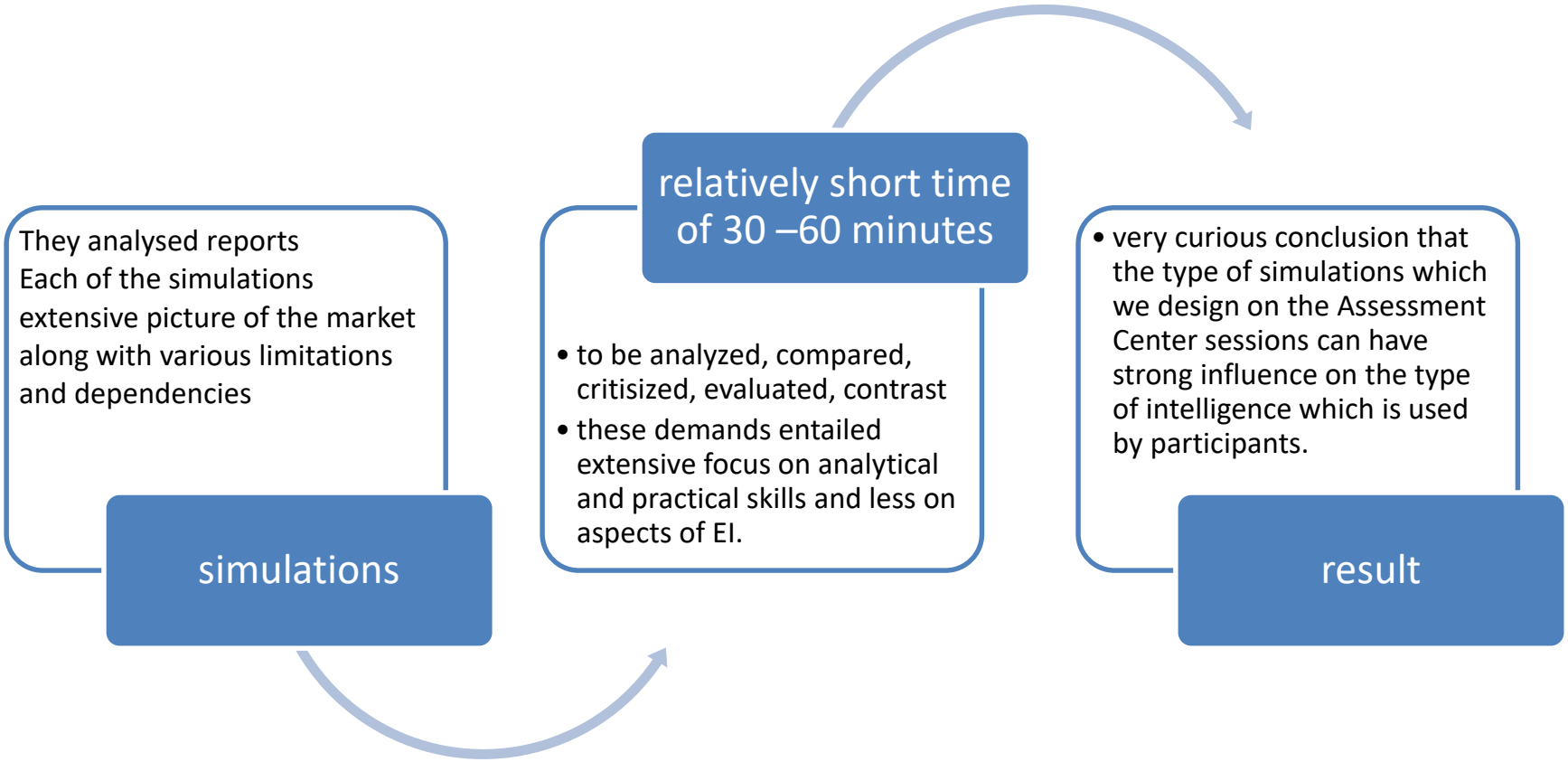
the hierarchical multiple regression revealed

	variable	% of variantion	dimension	significance
Stage 1	Analitical intelligence	12%	Employee Development	significant
Stage 2	Analitical intelligence Practical Intelligence	2%		significant
Stage 3	Analitical intelligence Practical Intelligence Emotional Intelligence			not significant

Findings

The findings confirm some past research and suggest modifications of conclusions from other research about the importance of types of intelligence and the construct validity of the AC method.

- **Analytical intelligence**, criticized in numerous studies as being too narrow **correlated** most frequently and most strongly with all five managerial performance dimensions (**Leadership, Initiative, Goal Orientation, Change Orientation, Employee Development**). The results support the traditional line of thinking that analytical intelligence is the source of many important competencies.
- The fashionable and popularized notion of **emotional intelligence** was **not found to be linked** to these performance dimensions of these top managers.
- Furthermore, although **practical intelligence correlated with four competencies**, these correlations are moderate. In addition, practical intelligence adds unique variance in the regression analyses for only 3 of 5 managerial performance dimensions, namely, **Leadership, Goal Orientation and Employee Development.**


They analysed reports
Each of the simulations
extensive picture of the market
along with various limitations
and dependencies
simulations
relatively short time
of 30 –60 minutes
• to be analyzed, compared, critisized, evaluated, contrast
• these demands entailed extensive focus on analytical and practical skills and less on aspects of EI.
• very curious conclusion that the type of simulations which we design on the Assessment Center sessions can have strong influence on the type of intelligence which is used by participants.
result

Top managers work more analytically, defining organizational strategy, creating developmental vision, and formulating structure.

while the middle managers work more with people/teams, steering them toward set targets, and implementing specific changes in the organizations

It is possible therefore, that it is the roles which top managers perform (focus on systems, structures, and problem-solving, rather than on individuals in the organization) that leads to a greater use of analytical intelligence as opposed to other forms of intelligence.

Future research

- Future research should examine the relative importance of other attributes beyond intelligence, such as **personality, interests, and values, in relation to managerial performance dimensions in systematically different levels of managerial samples**.
- In addition, studies at the level of different simulations are necessary.

Thank you for your attention ☺
Q&A

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