CONJECTURES AND HYPOTHESES FOR INTEGRATING BEHAVIOR MODELS IN ORGANIZATIONAL MANAGEMENT

Endre Horváth; Dennis Gabor College

horvathe@gdf.hu

1. ABSTRACT

Organizational planning and decision making happens at these six levels: *Strategies, Objectives, Processes (& Procedures), Activities, Tasks, and Operations*. Behavioral economics relies on psychology to explain how organizations work. This article proposes a theoretical framework to path the way for further research. The article will also highlight key assumptions and elements of each model with a link to appropriate organizational levels, and show linkages between the 20 models.

2. BACKGROUND

This article was conceived on a train in 2016, traveling from my native Budapest to Prague to deliver a top management training course to Central European leaders of a worldwide brand for office solutions. A heated debate – that sparkled the decision to now try explain the interconnectedness of behavioral economic models – started between my fellow trainer, a psychologist, and myself, an economist. The colleague argued that two distinct models explaining human behavior in business organizations cannot be linked.

To me the argumentation sounded ridiculous: we are describing the same phenomenon, i.e. business organizations. Why reject the possibility of comparing and contrasting such models in order to take a holistic approach? Thus, we can evaluate the past and future contextual validity of elements such models. At the time I did not know how to make my point clear and simple, so I abruptly exited the conflict situation.

After two long years of pondering and contemplation, it dawned on me: let's use the very skeleton of business organizations to be decorated with respective elements of behavioral economic models. The skeleton itself is called SOPATO[1], an acronym formulated in accordance with a hierarchical view of the six levels of management.

3. LITERATURE OVERVIEW

Organizational planning and decision making generally happens at these six levels:

1st Level S:	Strategies
2nd Level O:	Objectives
3rd Level P:	Processes (& Procedures)
4th Level A:	Activities
5th Level T:	Tasks
6th Level O:	Operations

Kunc, M and FA O'Brien (2018)[2] argue that "Business analytics can provide important data-driven insights into strategy processes;" in a discussion of how synthetic information at the strategic level needs to rely on analytical data from the operational level in an organization. As many articles on the topic, this description also lacks a clear presentation of the very distinction and connection between levels, such as strategies, processes, and operations.

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[1] SOPATO will sound vaguely familiar to native speakers of the Hungarian language, literally translating into an emotional state some will encounter in management courses and especially exams.

[2] https://www.tandfonline.com/doi/full/10.1080/01605682.2018.1475104

The models I have encountered and incorporated in this framework are: *DISC Types, Transactional Analysis, Assertive Communication, Non-Violent Communication, Team Roles, Conflict Mode, GROW Coaching, Competitive Strategies, Situational Leadership, Balanced ScoreCard, (Program &) Project Management, Golden Circle, Theory X & Theory Y, Needs Pyramid, Hygiene and Motivation, Leadership Pipeline, PESTEL Analysis, Change Management, Team Development, and Process Communication Model.*

Behavioral economics relies on psychology to explain how organizations work. I have intended to create a framework for 20 models to be compared and contrasted across the vertical dimension of organizations. The models I have encountered and incorporated are as follows, with an indication for each model of the earliest published source I could locate:

1. DISC Types: Marston [24]

2. Transactional Analysis: Berne [4]

3. Assertive Communication: Wolpe [39]

4. Non-Violent Communication: Rosenberg [30]

5. Team Roles: Belbin [3]

6. Conflict Mode: Thomas-Kilmann [15]

7. Grow Coaching: Whitmore [38]

8. Competitive Strategies: Porter [29]

9. Situational Leadership: Blanchard [10]

10. Balanced ScoreCard: Kaplan-Norton [13]

11. (Program &) Project Management: Fayol [8]

12. Golden Circle: Sinek [32]

13. Theory X & Theory Y: McGregor [26]

14. Needs Pyramid: Maslow [25]

15. Hygiene and Motivation: Herzberg [11]

16. Leadership Pipeline: Drotter [6]

17. PESTEL Analysis: Aguilar [1]

18. Change Management: Kotter [18]

19. Team Development: Tuckman [35]

20. Process Communication Model: Kahler [12]

For each model I included links to brief instructional videos in the footnotes for headings. These videos highlight major elements of the models I will refer to later on without explaining or expanding on their characteristics. (All hyperlinks were last visited on August 31, 2018.)

4. A FRAMEWORK FOR VALIDATION OF MODEL ELEMENTS

This article is an initial attempt at relating elements of these 20 models to six levels of the organization. I present a summary table for this framework (see Table 1).

The aim of such a presentation is not an overall validation of these models but an examination of elements in each model for fit at respective organizational levels. Thus the overall validity of these models is not debated, rather a framework for further ongoing research is proposed. I will formulate conjectures and hypotheses for each model and level.

LEVEL 1. DISC TYPE BEHAVIOR PATTERNS AND PERFORMANCE[3]

In 1928 Marston, WM (1928) proposed the DISC model to describe human behavior. In this article I propose for consideration and research the hypothesis that the desirability of styles of Dominance, Influence Steadiness and Compliance will vary at different levels of the organization. This observation will help decision makers improve individual and organizational performance.

Findings by Do, JH, and MK Park (2018)[4] show that students' health is in a statistically significant relationship with their DISC type. I personally have observed conflicting opinions of Human Resource Management professionals: some argue that successful teams will incorporate similar DISC profiles. My experience shows that – ceteris paribus – performance will increase in teams with mixed DISC profiles. For a more structured approach I propose the following:

Conjecture #1: *Performance will increase in organizations with DISC profiles matching respective SOPATO top-down management levels as follows: (S) Influencer, (O) Dominant, (P) Compliant, (A) Steady, (T) Dominant, and (O) Compliant.* The idea here is that strategic thinkers will Influence, top decision makers and shop floor managers will exert Dominance, middle management and implementers will be Compliant, and we need process owners to be Steady, for securing stable performance.

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[3] https://www.discprofilecanada.com/disc-profile-types/

[4] http://ijdmsr.com/wp-content/uploads/2018/02/E222227.pdf

Levels of Control > Behavior Models v	1st Level Strategies	2nd Level Objectives	3rd Level Processes	4th Level Activities	5th Level Tasks	6th Level Operations
1. DISC Types	Influencer	Dominant	Compliant	Steady	Dominant	Compliant
2. Transactional Analysis	Adult	Parent	Child	Adult	Parent	Child
3. Assertive Communication	Assertive	Manipulative	Submissive	Assertive	Aggressive	Submissive
4. Non-Violent Communication	Need	Request	Observe	Need	Request	Feel
5. Team Roles	Plant, Shaper	Monitor Evaluator	Resource In-vestigator	Team Worker	Coordinator, Implementer	Completer Finisher, Specialist
6. Conflict Mode	Collaborate	Compete	Collaborate	Avoid	Compete	Accommodate
7. Grow Coaching	Goal	Options	Reality	Reality	Will (or Way)	Will (or Way)
8. Competitive Strategies	Differentiation	Differentiation	Cost Drive	Cost Drive	Focus	Focus
9. Situational Leadership[5]	R4L4	R3L3	R3L2	R2L3	R2L2	R1L1
10. Balanced ScoreCard	Customers	Finances	Processes	Processes	Development	Development
11. Program & Project Management	Strategic	Strategic	Functional	Functional	Operational	Operational
12. Golden Circle	WHY	WHY	HOW	HOW	WHAT	WHAT
13. Theory X & Theory Y[6]	yyyy	yyyx	yyxx	xxyy	xxxy	xxxx
14. Needs Pyramid	Actualization	Esteem	Social	Safety	Physiological	Biological
15. Hygiene; Motivation	Status; Achievement	Policy; Growth	Supervision; Advancement	Relations; Recognition	Security; Responsibility	Conditions; Work
16. Leadership Pipeline	Lead Enterprise	Lead Group	Lead Business	Manage Function	Manage Managers	Manage Others
17. PESTEL Analysis	Political	Social	Legal	Environmental	Economic	Technological
18. Change Management	Vision, Coalition	Urgency	Communicate, Empower	Quick Wins	Build	Sustain
19. Team Development	Form	Storm	Norm	Norm	Perform	Perform
20. Process Communication	Imaginer	Promoter	Harmonizer	Thinker	Persister	Rebel

Table 1.
SOPATO levels of management as a validation framework for behavior models

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[5] R (Readiness) denotes employee behavior; L (Leadership Style) denotes management response.

[6] The xy character sets signify to what proportion Theory X & Theory Y are applied and/or applicable.

LEVEL 2.
TRANSACTIONAL ANALYSIS
IN MANAGING FOR SUCCESS[7]

As initially described by Berne, E (1977), transactional analysis (TA) will identify ego states that primarily direct human interaction. The last 40 years have seen a proliferation of model applications.

In a recent study Yu, E, and D Sangiorgi (2018)[8] contend that "contextual and holistic understandings of user experiences can inform value propositions that better fit users' value-in-use". They propose a new service development (NSD) model, geared toward value co-creation.

Conjecture #2: *Organizational success can be traced back to a simple ego state pattern across SOPATO levels, preferably with Strategy and Activity levels in Adult ego states, Objective and Task levels in Parent ego states, and Process and Operations levels in Child ego states.* The examination of this research proposal will contribute to a better understanding of group dynamics and communication barriers within organizations.

LEVEL 3.
ASSERTIVE COMMUNICATION
AND ORGANIZATIONAL HEALTH[9]

Wolpe (1958) first proposed assertiveness as a treatment target in psychotherapy. In management training today the *OK-OK Framework* is presented as a remedy for misconduct, mobbing and other organizational dysfunctions.

Bigman, CA, Mello, S, Sanders-Jackson, A, and Tan, ASL (2018)[10] found that "Significant correlates of assertive communication intentions in one or more venues were current smoking status, ever trying e-cigarettes, gender, age, health status, political ideology, and party identification."

Conjecture #3: *Healthy organizations use assertive behaviors predominantly at the highest management level, while aggressive, manipulative and submissive behaviors at lower management levels might be necessary.* This observation should be evaluated in the context of internal and external competitive forces defining appropriate behaviors.

LEVEL 4.
NON-VIOLENT COMMUNICATION (NVC)
FOR PRODUCTIVITY[11]

Rosenberg, M (2002) proposed NVC as a master tool for implementing the idea of self-improvement as a peaceful path to enhancing human interaction. The language of compassion will be a communication protocol internally and externally for organizations.

Wacker, R., & Dziobek, I. (2018)[12] found that "Empathic distress declined, and an increase of social stressors at work was prevented by enhanced emotion verbalization", when applying NVC. The four-step communication process of expressing observations, feelings, needs and requests leads to higher effectiveness.

Conjecture #4: *Distinct organizational levels will require unique flows of communication with emphasis on various elements of NVC for better productivity. Corresponding levels and communication steps are: Levels S and A for Need; Levels O and T for Request, Level P for Observe, and Level O for Feel.* In this corporate-culture scheme counterproductive behaviors such as *criticism*, *comparison*, *blame*, and *command* are more effectively eliminated, thus reducing sentiments of *fear*, *shame*, *guilt*, or *pressure*.

LEVEL 5.
TEAM ROLES AT WORK
AND JOB SATISFACTION[13]

Belbin, M (1993) presents a descriptive model of nine team roles in organizations for managers to consider. A right fit for the job will be proven through the exploration of the team role the individual is best capable of fulfilling. Quick tests may be conducted for this purpose.

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[7] https://www.youtube.com/watch?v=nKNyFSLJy6o

[8] http://journals.sagepub.com/doi/abs/10.1177/1094670517709356

[9] https://study.com/academy/lesson/assertive-communication-skills-definition-behaviors.html

[10] https://www.sciencedirect.com/science/article/abs/pii/S0306460318307901

[11] https://www.youtube.com/watch?v=4LuPCAh9FCc

[12] http://psycnet.apa.org/doiLanding?doi=10.1037%2Focp0000058

[13] https://www.belbin.com/resources/blogs/can-my-tr-change/

A recent study Ruch, W, F Gander, T Platt, and J Hofmann (2018)[14] presents "the construction of an instrument for the assessment of team roles in two samples and examines their relationships with character strengths and job satisfaction." Such findings support the predictive power of the Belbin team roles model.

Conjecture #5: *Job satisfaction and team success will increase if the allocation of team roles corresponds to respective levels of SOPATO: Plant, and Shaper (S); Monitor Evaluator (O); Resource Investigator (P); Team Worker (A); Coordinator, and Implementer (T); Completer Finisher, and Specialist (O).* In this arrangement, Plant and Shaper roles will work best at the top, while Completer Finisher and Specialist roles perform optimally at the bottom. This setup does not prohibit that individuals cross borders between these levels, but team roles associated with each level will be necessarily fulfilled.

LEVEL 6.
CONFLICT MODE FOR EFFECTIVENESS AND EFFICIENCY[15]

The five Management-of-Differences (MODE) attitudes (Competing, Collaborating, Compromising, Avoiding, and Accommodating) are described by Kilmann, RH and Thomas, KW (1977) to predict social desirability. The model can be extended to explain organizational success, using a compact survey tool (TKI).

Fujita, K (2017)[16] argues that if "our agent can adjust the speed of compromise by judging the opponent's Thomas–Kilmann conflict mode and search for the Pareto frontier using past negotiation sessions", outcomes will be enhanced. It is well worth then to examine how bargaining powers and successful negotiation outcomes depend on a distribution of MODE attitudes.

Conjecture #6: *An arranged distribution design of MODE attitudes for SOPATO management levels – such as Collaborate for S, Compete for O,* Collaborate for P, Avoid for A, Compete for T, and Accommodate for O – will result in higher organizational effectiveness and efficiency. The fact that different levels require different attitudes is evident. Here a proposed arrangement is suggested, with Collaboration repeated at the 1st and 3rd, and Competition at the 2nd and 5th level.

LEVEL 7.
GROW COACHING AND PROCESS OUTPUT[17]

Whitmore, J (1992) presents the process of coaching as a tool for growing professional performance. The four steps of identifying Goals, Reality, Options and Will (or Way), are an excellent way of conducting business coaching and also life coaching.

Recent results have indicated that such a compact instrument could serve social development purposes as well. Yount, KM, S Miedema, KH Krause, CJ Clark (2018)[18] assert "that the GROW mentorship model is a promising strategy to build women's leadership".

Conjecture #7: *Emphasis on certain steps will elevate the perceived relevance and effectiveness of the coaching process at corresponding organizational levels: a focus on Goals at the 1st Level, Reality at the 2nd Level, Options at the 3rd and 4th Levels, and Will (or Way) at the 5th and 6th Levels will enhance the coaching process and improve output.* Such shift in focus will not change the sequence of steps, but alter time allotted to each step.

LEVEL 8.
COMPETITIVE STRATEGIES IN INTEGRATION[19]

Porter, ME (1980) suggests three generic strategies for a better competitive position of the organization: Differentiation, Focus, and Cost Drive. Overall success will depend on a clear identification and implementation of such strategies.

[14] https://www.tandfonline.com/doi/abs/10.1080/17439760.2016.1257051

[15] http://www.kilmanndiagnostics.com/videos-thomas-kilmann-conflict-mode-instrument-tki

[16] https://onlinelibrary.wiley.com/doi/abs/10.1111/coin.12107

[17] https://www.mindtools.com/pages/article/newLDR_89.htm

[18] https://www.cambridge.org/core/journals/global-health-epidemiology-and-genomics/article/grow-a-model-for-mentorship-to-advance-womens-leadership-in-global-health/3B089A50332A8949E34CD40F9167CF07

[19] https://www.mindtools.com/pages/article/newSTR_82.htm

Nowlin, EL and D Walker, NA Anaza (2018)[20] found that "Salesperson connectedness positively impacts salesperson performance". In this context strategic implementation is required for superior performance. It is my proposal that the implementation of a single competitive strategy will deliver sub-optimum achievement, therefore those should be integrated.

Conjecture #8: *A combination of all three generic strategies will result in near-optimum achievement through an effort to integrate Differentiation (1st and 2nd Levels), Cost Drive (3rd and 4th Levels), and Focus (5th and 6th Levels).* Thus we need to establish Differentiation in Strategies and Objectives, Cost Drive in Processes and Activities, and Focus in Tasks and Operations, in order to try reach optimum.

LEVEL 9.
SITUATIONAL LEADERSHIP (SL) AND TRANSFORMATION[21]

Hersey, P, Blanchard, KH, and Natemeyer, WE (1979) discuss maturity various levels of employees and how those relate to different leadership styles. R1 through R4 indicated maturity levels, from Can't/Won't and Can't/Will to Can/Won't and Can/Will; whereas L1 through L4 signify Telling, Selling, Participating, and Delegating.

In her paper Kovach, M (2018)[22] shows "how transformational leadership transcends disciplines and exemplify the value of transformational leadership, resulting in higher achievement outcomes". This is a valid example of how the overall model has prevailed in management theory and practice: in this case from a transformational angle.

Conjecture #9: *Leadership, and especially transformational leadership, delivers more success if a combination of maturity levels is accepted and a mix of leadership styles is adopted across the six levels of the organization, i.e. R4L4 (for Level S); R3L3 (for Level O); R3L2 (for Level P); R2L3 (for Level A); R2L2 (for Level T); and R1L1 (for Level O).* R1L1 and R4L4 readiness and leadership style correspondences are easy to accept, but there has been a debate in literature about the clear distinction between R2 and R3 maturity levels, and the relationship to corresponding styles. The research proposal above might respond to doubts of this nature.

LEVEL 10.
BALANCED SCORECARD (BSC) IN STRATEGIC MANAGEMENT[23]

The intention of Kaplan, RS, and Norton, DP (1996) was to design performance measurement with a power to predict the future of the organization. The proposed BSC framework suggests that relying on financial measures will hinder organizational success. These measures need to be supported by customer, process, and development (or people) measures.

More recently, Malagueño, R, and E Lopez-Valeiras, J Gomez-Conde (2018)[24] conclude that SMEs "firms using BSC for feedforward control obtained better financial performance and presented higher levels of exploitative innovation". My proposal is to link these BSC levels directly to SOPATO levels for better strategic management.

Conjecture #10: *Organizational performance will improve if BSC measures directly correspond, and are accountable at each SOPATO level: Customers and Finances at the 1st and 2nd Level, Processes at the 3rd and 4th, and Development at the 5th and 6th Levels.* Note that the order of Finances and Customers is reversed here, with Customers positioned at the top level, a proposal to be researched and tested.

LEVEL 11.
PROGRAM AND PROJECT MANAGEMENT FOR MIRROR ORGANIZATION[25]

We can trace the origin of project management to how Fayol, H (1917) presented five functions of a manager: (1) to plan, (2) to organize, (3) to coordinate, (4) to control, and (5) to direct or command. At later development stages in management theory, project planning, project documentation and project communication gained wider interest in order to integrate projects into programs.

[20] https://www.sciencedirect.com/science/article/pii/S0019850117300238

[21] https://study.com/academy/lesson/what-is-situational-leadership-theories-styles-definition.html

[22] https://scholar.valpo.edu/jvbl/vol11/iss2/14/

[23] https://hbr.org/video/3633937148001/the-explainer-the-balanced-scorecard

[24] https://link.springer.com/article/10.1007%2Fs11187-017-9921-3

[25] https://www.projectmanager.com/training/the-difference-between-a-program-manager-and-a-project-manager

Martinsuo, M, and P Hoverfält (2018)[26] reinforced "that programs cannot be treated as scale-ups of projects and that programs need to be treated as contextual, multi-level, and evolutionary entities". Thus the level of the project management function is supported vertically by strategic and operational management levels.

Conjecture #11: *Organizational efficiency and effectiveness increase with distinct management levels fulfilling distinct project management functions: Strategic Project Management at the 1st and 2nd Level, Functional Project Management at the 3rd and 4th Level, and Operational Project Management at the 5th and 6th Level.* These management levels correspond with traditional project roles such as top levels of supervisory boards and technical levels of subprojects, also to form a mirror organization in the cooperating partner.

LEVEL 12.
GOLDEN CIRCLE TO START WITH WHY[27]

Sinek, S (2011) argues that his own work motivation waned before he discovered his WHY, the internal drive to move forward. He states that the internal and external communication of our organization's WHY should precede sharing HOW and WHAT we do.

In an effort to attract talented juniors to urogynaecology, van Delft, KWM and RA de Leeuw (2018)[28] "combine motivational theory and role models". This is just one example of a number of successful applications of the Golden Circle model.

Conjecture #12: *Organizations will be more successful if management levels keep transmitting unified messages according to their scope, with specific emphasis for: S and O Levels on WHY, P and A Levels on HOW, T and O Levels on WHAT we do.* In this way messages will be more consistent internally and externally, building a more appealing brand.

LEVEL 13.
THEORY X & THEORY Y IN PRACTICE[29]

In his work McGregor, D (1960) examined theories on behavior of individuals at work, and formulated two approaches, which he calls Theory X and Theory Y. He considers these theories to represent two quite separate attitudes.

Theory Y is difficult to put into practice on the shop floor in large mass production operations, but it can be used initially in the managing of managers and professionals. Madero-Gómez, S M, and D R Rodríguez-Delgado (2018)[30] found a significant positive relationship between the existence of Theory Y and job satisfaction, whereas there was no relationship with Theory X present.

Conjecture #13: *Management will be more effective when combining Theory X and Theory Y in an easy-to-follow manner with each level using a mix of x and y, changing gradually from top to bottom as: yyyy, yyyx, yyxx, xxyy, xxxy, xxxx.* The y's and x's denote the number of beliefs held, originally identified by McGregor: dislike vs enjoy work, coercion vs self-control, avoid vs seek responsibility, no ambition vs commitment to objectives.

LEVEL 14.
NEEDS PYRAMID AND
ORGANIZATIONAL STRUCTURES[31]

Maslow, A.H. (1943) identifies a hierarchy of human needs: physiological, safety, belonging and love, esteem, self-actualization, and later self-transcendence – for external goals. Fulfilling a need lower in hierarchy is necessary to reach a higher level need. At the same time, satisfying a higher need will be irrelevant until lower needs are met.

According to Kheirkhah, A, and F Nejad-Irani (2018)[32] "there was a significant relationship between the levels of teachers' needs and their productivity" in a survey of 305 teachers. This study underpins my idea of delegating accountability to each level for each need.

Conjecture #14: *Productivity will increase if the responsibility for needs satisfaction is distributed vertically in the organization: Strategies: self-transcendence, Objectives: self-actualization, Processes: esteem, Activities: belonging, Tasks: safety, and Operations: physiological.* The actual responsibilities for each level shall be reflected in the job descriptions of managers.

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[26] https://www.sciencedirect.com/science/article/pii/S0263786316304744

[27] https://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action?language=hu

[28] https://link.springer.com/article/10.1007/s00192-017-3549-3

[29] https://www.mindtools.com/pages/article/newLDR_74.htm

[30] http://www.revistaciencia.uat.edu.mx/index.php/CienciaUAT/article/view/1014

[31] https://www.youtube.com/watch?v=qQJwE6yg6cY

[32] http://www.vspep.edu.rs/_img/downsekcija/2018/03/ir_special_3-2_3.pdf#page=59

LEVEL 15.
HYGIENE AND MOTIVATION
FOR INTERNAL AND EXTERNAL DRIVE[33]

In his seminal work, Herzberg, F (1968) shows how to drive employees by removing negative factors (Hygiene) and adding positive factors (Motivators) for better performance. The fundamental difficulty lies in making the distinction between the two factors.

In an analysis by Kotni, VVDP, and V Karumuri (2018)[34] "for both the factors — hygiene and motivation — factor analysis was executed separately to identify the most satisfying motivation measures by sales persons." It is found that Hygiene is considered to work internally, while Motivators function externally.

Conjecture #15: *In order to better drive employees, both hygiene (H) and motivators (M) need to be catered for at each level as follows: 1st level Status (H) and Achievement (M), 2nd level Policy (H) and Growth (M), 3rd level Supervision (H) and Advancement (M), 4th level Relations (H) and Recognition (M), 5th level Security (H) and Responsibility, 6th level Conditions (H) and Work (M).* The H-M pairs used in this proposal relate to the original ideas of the model but include factors to be added for both Hygiene and Motivation.

LEVEL 16.
LEADERSHIP PIPELINE FOR PLANNING[35]

Charan, R, Drotter, S, and Noel, J (2010) propose six turns in a manager's career to reach the highest level of leadership. These turns (transitions, passages, or break points) pose a major challenge for performance management, as adjustment is extremely time consuming at each level. However, planning and coaching our managers to become leaders in a planned manner will facilitate the process.

In an interesting field of application, Aman, MP, and A Yusof, M Ismail, ABM Razali (2018)[36] explore how "In sport leadership, empirical research showed statistical figures that women have gained access in leadership pipeline however, they still lack representation on executive boards."

Conjecture #16: *Applying the Leadership Pipeline in identifying turns and educating managers before each turn in an organization will result in better performance management.* The six levels of SOPATO directly correspond with six the levels for building a Performance Pipeline. Accordingly, there are six transitions to prepare management for the passage from Manage Others and Manage Managers, through Manage Function and Lead Business, to Lead Group and Lead Enterprise.

LEVEL 17.
PESTEL ANALYSIS IN MONITORING[37]

To describe crucial external factors for organizational management, PESTEL was first coined as ETPS (economic, technical, political and social) by Aguilar, FJ (1967) and has been modified since to encompass environmental and legal issues. Each organizational level will be exposed to a different set of these external factors.

"Empirical results show that there is a positive correlation between knowledge management and competitive advantage", according to a recent study by Kimani, GK, and M Ogutu (2017).[38] Therefore it is well worth designing a system where information on PESTEL factors is shared.

Conjecture #17: *Delegating specific external monitoring responsibilities to each level of the organization will enhance efficiency and effectiveness.* A useful solution design will match PESTEL and SOPATO in the following way: Strategies – Political, Objectives – Social, Procedures – Legal, Activities – Environmental, Tasks – Economic, and Operations – Technological.

LEVEL 18.
CHANGE MANAGEMENT
THROUGH ENGAGEMENT[39]

In his groundbreaking article Kotter, JP (1995) suggests that change is a lengthy process where steps cannot be skipped without risking failure. In order to further elaborate on the initial idea I suggest linking each step to distinct organizational levels.

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[33] https://www.linkedin.com/pulse/herzbergs-motivation-hygiene-theory-one-minute-marcos-garcia-pmp/

[34] https://search.proquest.com/openview/231afba258a7aa8085ac23e746fef0f0/1?pq-origsite=gscholar&cbl=2029985

[35] https://www.youtube.com/watch?v=wmfF3s8Bk5M

[36] http://mohejournal.com/index.php/mohe/article/view/186

[37] http://pestleanalysis.com/pestel-analysis-marketing-teacher/

[38] https://www.iprjb.org/journals/index.php/EJBSM/article/view/569

[39] https://www.youtube.com/watch?v=HPh6mv4DN0o

Sjöblom, S (2018)[40] offers "a revised change management model that emphasizes the middle managers role to reduce challenges they are facing". I propose that authority for change management should be distributed vertically within the organization.

Conjecture #18: *Change Management projects will be more successful if each management level is involved in the process through distributing responsibility for change as follows: 1st Level: create Vision and Coalition, 2nd Level: demonstrate Urgency, 3rd Level: Communicate and Empower, 4th Level: reach Quick Wins, 5th Level: Build on change, and 6th Level: Sustain change.* In this way the whole organization will grasp the reason for change, knowing what they can contribute and how they can benefit.

LEVEL 19.
TEAM DEVELOPMENT SKILLS IMPROVEMENT[41]

Tuckman, BW (1965) contends that the four development phases of Forming, Storming, Norming, and Performing are inevitable for groups in order to deliver result. As a next step, specific skills could be improved to cater for each step in this process.

In Peralta, CF, and PR Lourenço, PN Lopes, C Baptista, L Pais (2018) the authors researched dimensions of performance. "Convergent and discriminant validity was established, and criterion-related validity was determined through the scale's relation with 3 facets of team effectiveness: viability, extra-role performance, and reputation."

Conjecture #19: *It is beneficial for organizations to appoint phase owners in a team development cycle according to the six levels of management, with the Forming phase at the Strategies Level, the Storming phase at the Objectives level, the Norming phase at the Processes and Activities Level, and the Performing phase at the Tasks and Operations Level.* Such a setup will prepare ground for a more integrated Team Development cycle.

LEVEL 20.
PROCESS COMMUNICATION MODEL (PCM) PATTERNS PAIRED[42]

Kahler, T (1982) describes behavior patterns based on 6 underlying perceptions we all possess. Using those perceptions we can map out interactions with colleagues and partners to increase engagement levels. To achieve this, you need to assess yourself and identify others' primary perceptions.

It is advisable to establish a practical framework for making this model work. Son, D, I Shimizu, H Ishikawa, M Aomatsu, and J Leppink (2018)[43] contend that "The findings indicate that students' willingness to show empathic behaviour is much more correlated with perspective taking than with compassionate care."

Conjecture #20: *Maintaining a PCM Model through encouraging the exploitation of the six Primary Perceptions at the six Management Levels will contribute to organizational progress.* The Management Levels and Primary Perceptions will be paired as follows: Strategies – Imaginer, Objectives – Promoter, Processes – Harmonizer, Activities – Thinker, Tasks – Persister, Operations – Rebel.

5. CONCLUSIONS AND RECOMMENDATIONS

Based on Conjectures #1 through #20 I propose the following six hypotheses for further research, relevant to the organizational levels shown in respective columns of *Table 1:*

Hypothesis A: 1st Level Strategies require an Influencer type Adult ego state Assertive communicator, with expressed Needs in team roles of Plant and Shaper, to Collaborate on Goal setting for Differentiation on the market, who Delegates and focuses on Customers in Strategic projects to formulate the WHY of the organization, relying entirely on Theory Y at the Self-Actualization needs level, providing Status and Achievement in order to Lead an Enterprise, considering Political factors, creating a Vision and establishing a Coalition in Forming teams, and utilizing Imaginer perceptions.

[40] http://osuva.uwasa.fi/handle/10024/5431

[41] https://www.sagu.edu/thoughthub/4-stages-of-team-development

[42] https://www.youtube.com/watch?v=FQpmgkHmprM

[43] https://link.springer.com/article/10.1007/s40037-018-0431-z

Hypothesis B: 2nd Level Objectives require a Dominant type Parent ego state Manipulative communicator, with expressed Requests in a team role of Monitor Evaluator, to Compete for evaluating Options with Differentiation on the market, who Participates and focuses on Finances in Strategic projects to formulate the WHY of the organization, relying mostly on Theory Y at the Self-Esteem needs level, defining Policy and Growth in order to Lead a Group, considering Social factors, creating Urgency in Storming teams, and utilizing Promoter perceptions.

Hypothesis C: 3rd Level Processes require a Compliant type Child ego state Submissive communicator, with expressed Observations in a team role of Resource Investigator, to Collaborate along Reality checking for Cost Drive on the market, who Sells and focuses on Processes in Functional projects to formulate the HOW of the organization, relying on Theory Y and Theory X at the Social needs level, providing Supervision and Advancement in order to Lead a Business, considering Legal factors, offering Communication and Empowerment in Norming teams, and utilizing Harmonizer perceptions.

Hypothesis D: 4th Level Activities require a Steady type Adult ego state Assertive communicator, with expressed Needs in a team role of Team Worker, to Avoid conflict along Reality checking for Cost Drive on the market, who Participates and focuses on Processes in Functional projects to formulate the HOW of the organization, relying on Theory X and Theory Y at the Safety needs level, providing Relations and Recognition in order to Manage a Function, considering Environmental factors, reaching Quick Wins in Norming teams, and utilizing Thinker perceptions.

Hypothesis E: 5th Level Tasks require a Dominant type Parent ego state Aggressive communicator, with expressed Requests in team roles of Coordinator and Implementer, to Compete in marking the Way forward for Focus on the market, who Sells and focuses on Development in Operational projects to formulate the WHAT of the organization, relying mostly on Theory X at the Physiological needs level, providing Security and Responsibility in order to Manage Managers, considering Economic factors, Building on change in Performing teams, and utilizing Persister perceptions.

Hypothesis F: 6th Level Operations require a Compliant type Child ego state Submissive communicator with expressed Feelings in team roles of Completer Finisher and Specialist, to Accommodate in marking the Way forward for Focus on the market, who Tells and focuses on Development in Operational projects to formulate the WHAT of the organization, relying entirely on Theory X at the Biological needs level, providing Conditions and Work in order to Manage Others, considering Technological factors, Sustaining change for Performing teams, and utilizing Rebel perceptions.

Finally, it remains to be seen whether these conjectures and hypotheses will contribute to enhancing performance management and fostering organizational development. I am very hopeful in this respect, and recommend my theoretical proposals for future empirical research.

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