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**SELECTED REFLECTIONS AND ELABORATIONS
ON SITUATIONAL LEADERSHIP AND MANAGEMENT:
PROPOSING SITUATION-ACTION MODEL
FOR PROJECT CONTEXTUALIZATION AND
HUMAN AND ROBOT RESOURCE MANAGEMENT**

This article aims to benefit from Situational Leadership Model (Hersey and Blanchard, 1977) to suggest new perspectives on project management and resource management. Accordingly it first proposes an integrated, systematic model of project context assessment and management, built upon existing analysis tools and approaches on team members, stakeholders and risks as critical situational aspects of project context or environment. This model underlines situation-based action with respect to tasks, relationships and informations for project management and managers. Accordingly, the suggested model could have various implications for practicing, teaching and learning of Project Management, as well as in other areas of management. The original Situational Leadership Model and proposed Situation-Action Model will then be adapted to suggest a framework for Human and Robot Resource Management, considering new developments and applications in artificial intelligence. Paper will be finalized with suggestions for future work on visualizing analytical relationships on the Situational Leadership model and other relevant conceptualizations.

Key words: Situational Leadership Model, Project Management, Project Context, Team Members, Stakeholders, Risks, Model Development, Situation-Action Model, Human and Robot Resource Management.

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**Ситуациялық көшбасшылық пен басқарудағы жаңалықтар:
жобаны контекстендіруге және адами және
роботтық ресурстарды басқаруға арналған жағдай-әрекет моделі**

Мақаланың мақсаты жобаны және ресурстарды басқаруға қатысты жаңа перспективалар ұсыну үшін жағдайлық көшбасшылық моделін (Hersey, Blanchard, 1977) өзектендіру болып табылады. Мақалада жоба контекстінің маңызды жағдайлық аспектісі ретінде топ мүшелеріне, мүдделі тұлғаларға және тәуекелдерге қатысты талдау құралдары мен тәсілдері негізінде жобаның контекстін бағалау мен басқарудың біріктірілген, жүйелі моделі қарастырылады. Бұл модель жобаларды басқару үшін тапсырмалар, қарым-қатынастар және ақпараттарға қатысты ситуациялық әрекеттерге баса назар аударады. Тиісінше, осы модельдің нәтижелері әртүрлі болуы мүмкін: тәжірибе, оқыту, жобаларды басқару, сондай-ақ басқарудың басқа салалары бойынша. Ситуациялық көшбасшылықтың бастапқы моделімен салыстырғанда, ұсынылған жағдай-әрекет моделі адами мен роботтық ресурстарды басқаруға негіз қалау үшін жасанды интеллект саласындағы жаңа жетілдірулерге бейімделеді. Зерттеу ситуациялық көшбасшылық моделіндегі аналитикалық қарым-қатынастарды және басқа да тиісті тұжырымдамаларды визуализациялау бойынша болашақ зерттеулерге арналған ұсыныстармен аяқталады.

Түйін сөздер: ситуациялық көшбасшылық моделі, жобаны басқару, жоба контексті, топ мүшелері, мүдделі тұлғалар, тәуекелдер, модельді дамыту, жағдай-әрекет моделі, адами және роботтық ресурстарды басқару.

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**Размышления и разработки по ситуационному лидерству и управлению:
модель ситуация-действие для контекстуализации проекта и
управления человеческими и роботными ресурсами**

Целью данной статьи является актуализация модели ситуационного лидерства (Hersey, Blanchard, 1977), для того чтобы предложить новые перспективы управления проектами и ресурсами. В статье в первую очередь рассматривается комплексная, систематическая модель оценки и управления контекстом проекта, основанная на существующих инструментах анализа и подходах к членам команды, заинтересованным сторонам и рискам в качестве критических ситуационных аспектов контекста или окружающей среды проекта. Эта модель подчеркивает ситуационные действия в отношении задач, отношений и информации для руководства проектом. Соответственно, выводы рассматриваемой модели могут быть разными: для практики, преподавания и изучения управления проектами, а также в других областях управления. Первоначальная модель ситуационного лидерства и предложенная модель ситуация-действие впоследствии будут адаптированы с учетом новых разработок в области искусственного интеллекта, чтобы предложить основу для управления человеческими и роботными ресурсами. Исследование завершается предложениями для будущего исследования по визуализации аналитических отношений в модели ситуационного лидерства и других соответствующих концептуализаций.

Ключевые слова: модель ситуационного лидерства, управление проектом, контекст проекта, члены команды, заинтересованные стороны, риски, разработка модели, модель ситуация-действие, управление человеческими и роботными ресурсами.

Introduction

Situational Leadership Model (Hersey and Blanchard, 1977) is among the most influential academic works in leadership and management fields. Personally also, when I had studied in Bilkent University to get my Bachelor's Degree in Business Administration approximately 25 years ago, when I had learned it, it had deeply influenced me with its both logical and intuitive way of thinking to address significant real-life issues in management practice.

As I have been invited by Al-Farabi Kazakh National University to work on project management as an international researcher, I have had the chance to revisit the Situational Leadership Model and develop new perspectives to be applied into project and resource management. Accordingly, this article presents the related reflections and elaborations towards developing Situation-Action Model, based upon the Situational Leadership Model, firstly for Project Contextualization, and secondly for Human and Robot Resource Management.

Situation-Action Model for Project Contextualization

As part of Project (Management) Life Cycle, conceptualization and contextualization of projects is crucial for project initiation. Significant elements of project context and environment are project teams

and other stakeholders, as well as uncertainties and risks to be considered and assessed.

There are different tools for assessing or analyzing each contextual element, however essentially they serve the same purpose in the same manner: as analytical tools for taking action depending on the situation. So this conceptual paper firstly aims to address this main question: Could we combine all these tools into one grand framework for a more systematic analysis?

Developing such integrated framework for systematic analysis of project context could then be useful for Project Management (PM), and its education and training, as these are the main elements used for PM analysis and learning for environmental assessment. Accordingly, I will next discuss the individual elements of these project contextualizations and then propose a systematic and integrated framework, benefiting from each element and interlinks among each other.

Existing Tools for Project Contextualization

The Situational Leadership Model (Hersey and Blanchard, 1977) is also one of the most useful and practical theories for PM (<https://www.project-management-skills.com/situational-leadership-model.html>), considering the management of project team members as employees or followers in workplace. Depending on the situational readiness of the team members, the style for their management and leadership is determined by the model (Figure 1).

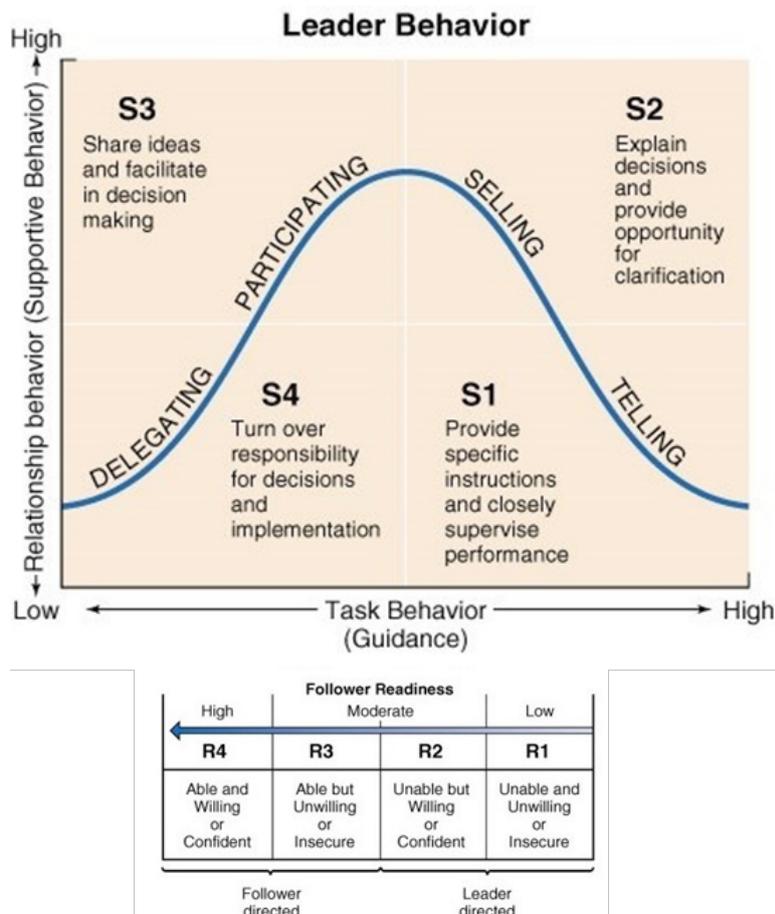


Figure 1 – Situational Leadership Model (Hersey and Blanchard, 1977)
 Source: <https://mep.purdue.edu/news-folder/situational-leadership-a-guide-to-coaching-employee-performance/>

The basic principles of the model can be applied to not only individual but also institutional project team or consortium members, providing a useful conceptual framework for the project team management based on Task and Relationship Behavior. Project teams can also be considered as among the (key) stakeholders, which over all deserve themselves a particular attention for proper environmental analysis and contextual assessment in order to effectively manage the project.

For a good evaluation of communication and collaboration with different types of stakeholders, Eden and Ackermann’s (Eden et al., 1998) model (in Bryson, 2004) again provides a useful and practical tool for project managers or coordinators to determine interactions with project environments. Accordingly, stakeholders are classified based on their power or interest, and then specific suggestions for managerial action are suggested, where relationship (maintenance) and information (sharing) holds a profound place (Figure 2).

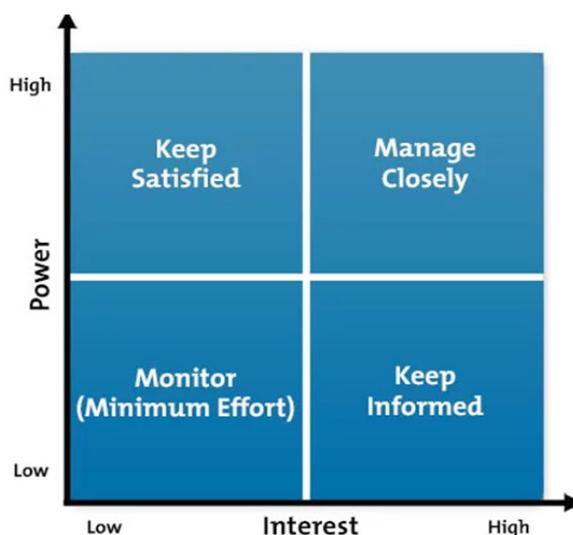


Figure 2 – Stakeholder Analysis (Eden and Ackermann, 1998: 122)
 Source: https://www.mindtools.com/pages/article/newPPM_07.htm, adapted from (Mendelow, 1981)

Information becomes especially important, when risks associated with uncertainties are taken into account to evaluate the project context. These risks could be linked with various issues (including team coordination issues or negative influences of powerful stakeholders, among others), and surely must be identified and classified to take proper action for effective management.

Awati (Awati, 2009) also provides a good, useful tool for risk assessment, based upon Cox's work (Cox, 2008). Accordingly, risks could also be categorized as a 2*2 matrix, based upon (the combination of) probability and impact, and the significance of related risks is visualized by different colors (Figure 3), and accordingly specific actions could be taken, depending on the characteristics of the particular risks. Specific action types as «risk response techniques» also support such risk categorizations.

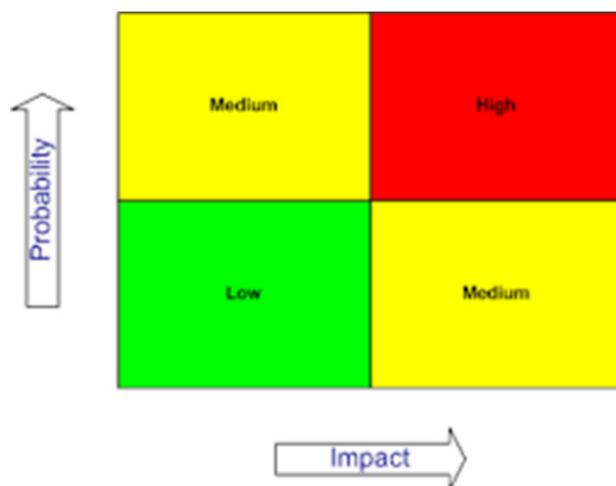


Figure 3 – Classification and Assessment of Risks
Source: Awati, 2009

One common characteristics of these three analytical tools (explained visually above) for team members, stakeholders and risks is their classification into 2*2 matrices that underline their situational characteristics, based on significant parameters.

- For Team Members: Motivation and Ability
- For Stakeholders: Power and Interest
- For Risks: Probability and Impact

Accordingly, useful analysis could be made for each contextual element. However, with respect to action taking, the analytical tool for the team members have a more systematic methodology, explicitly interlinking the situational characteristics

with the possible action choices (Task or Relationship Behavior) depending on the situation. The analytical tool for stakeholders and risks also provide suggestions for action, however they are not that systematically or explicitly interlinked with the situational characteristics. The particular focus of the next sub-section will then be to externalize and systematize the related aspects in order to develop an integrated approach for project contextualization, benefiting from the interrelated issues with respect to each element, i.e. team members, stakeholders and risks.

Proposing a Systematic and Integrated Approach to Project Contextualization

Firstly, the project team membership approach could be reinterpreted, benefiting from the colored interpretation of risks, as below. Here, color of each situation in the first 2*2 box below matches with the related action in the second 2*2 box above. Also Tasks and Acts are used interchangeably (Figure 4).

This logical relationship between situational characteristics such as Ability and Motivation and action choices such as Relationship and Task (Act), based on 2*2 interlinked matrices be applied to other contextual elements of Stakeholders and Risks. (In fact, Stakeholder and Risk Assessment tools are more straightforward than the original Team Member (Employee/Follower) Readiness tool) (Figure 5 and 6). In these tools, again color of each situation matches with the related action.

With respect to the stakeholders, the main new contribution of this work is the classification of managerial action choices based on Relationship and Information (Information Sharing), and accordingly the interlink of these action choices with situational characteristics based on stakeholder Power and Interest: «Keep Informed» matches well with «High Information and Low Relationship» choice, whereas «Keep Satisfied» is associated with «High Relationship and Low Information» choice. More straightforwardly «Manage Closely» emphasizes both a «High Information and High Relationship» option, and «Minimum Effort» underlines a «Low Information and Low Relationship» option. Accordingly, similar to the Team Members tool, a Situation-Action Framework can also be created for Stakeholder Assessment.

Then, with respect to the risks, the main new contribution of this work is the classification of managerial action choices based on Information (Information Acquisition) and Acts (Tasks), and accordingly the interlink of these action choices with situational characteristics based on risk Probability and Impact.

Project Team & Team Members

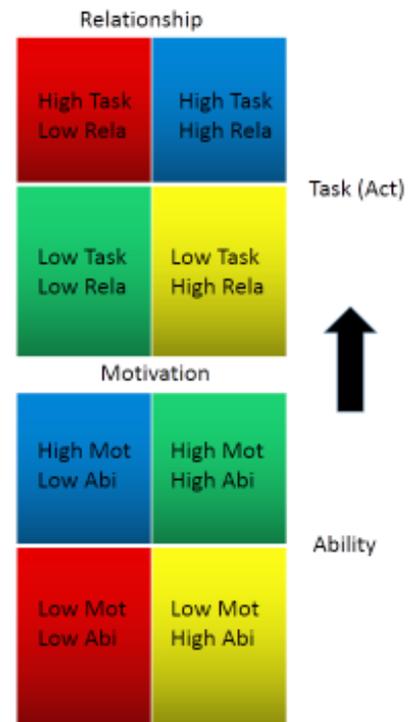
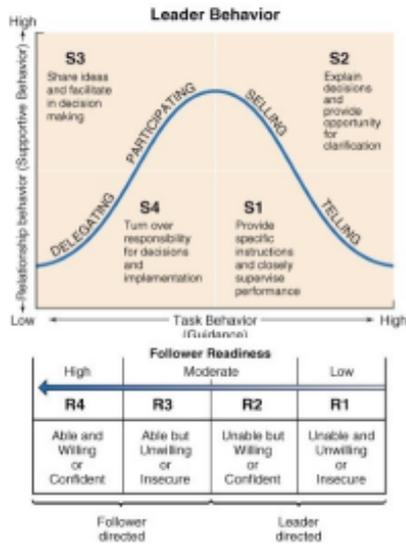


Figure 4 – Situation-Action Framework for Project Team Members

Stakeholders

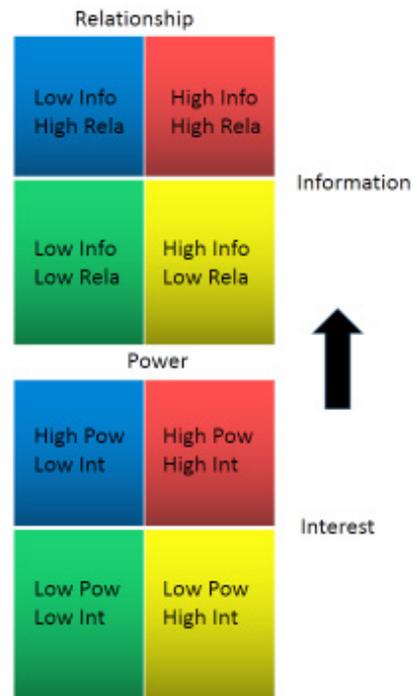


Figure 5 – Situation-Action Framework for Project Stakeholders

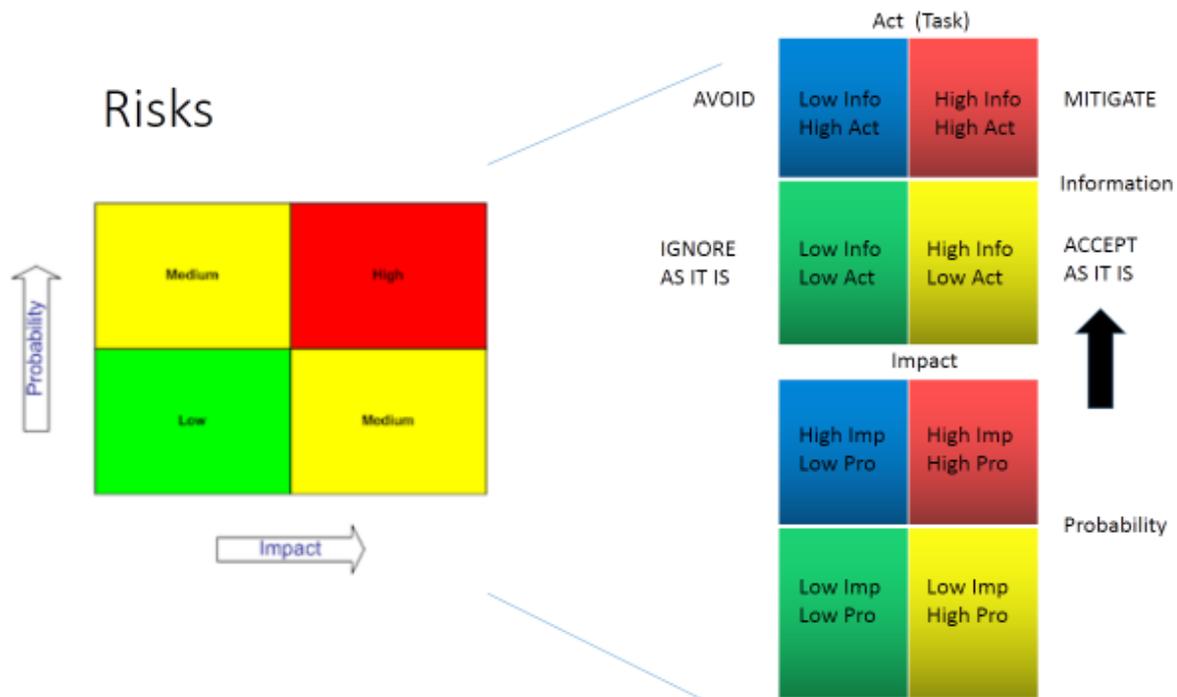


Figure 6 – Situation-Action Framework for Project Risks

Accordingly, specific action choices are also suggested: «Mitigate» matches well with «High Information and High Act» choice, as these are the risks with «High Probability and High Impact» (rather than High Impact and High Probability, as in the original Figure 3), and the managers should do their best to decrease the consequences of these risks. «Ignore as it is» matches well with «Low Information and Low Act», since these are the risks with «Low Probability and Low Impact». «Avoid» can be associated with «Low Information and High Act», as these are the risks with «Low Probability and High Impact», so the project managers should still try to take action in order to avoid the high impact of these risks, even if their likelihood is low (they are very unlikely) and the project may not have much information about them (and it is also important to acknowledge that some risks can never be fully avoided). Finally, «Accept as it is» corresponds well with «High Information and Low Act», as these are the risks with «High Probability and Low Impact», and accordingly the managers may just acquire more information about these common risks, but do not necessarily take a particular action beforehand or afterwards to deal with them. As a result, similar to the Team Members and Stakeholders tools, a Situation-Action Framework can also be created for Risk Assessment.

These three similar analytical tools for team members, stakeholders and risks then enable us to systematically compare and combine the related particular contextual issues under a main, integrated framework. Here, situational analysis with respect to the team members are based primarily on the Tasks (Acts) and secondarily on the Relationships, as the main concern for the team is to complete the tasks as part of the project life cycle. However, with respect to the environmental analysis that take into account all the related stakeholders, the primary focus is on the Relationships which could last shorter or longer than the project life cycle. This primary relationship focus is complemented by a secondary focus on the Informations, as information sharing is also critical for communication and collaboration with stakeholders. Finally, with respect to contextual analysis on risks, the main emphasis is on the Informations themselves, as the more information is obtained, the less uncertain the situation becomes. Furthermore, a related but secondary emphasis is again on the Tasks (Acts), since based on what project managers can know beforehand they can take the right actions to deal with the related risks. Furthermore, these analysis need to be updated regularly in accordance with changing situations throughout the project, in conclusion, highlighting a peri-project approach for the analysis of contextual issues. The resulting Situation-Action Model for

Project Contextualization is illustrated below (Figure 7). If Time (Schedule), Cost (Budget) and Quality (or Scope) could be considered the Iron Triangle of Project Conceptualization, this Tasks (Acts), Relationships and Informations triangle could be considered the Silver-Lining Triangle of Project Contextualization.

As it is shown in this section, an integrated, systematic view of project context assessment and management, built upon well-established analysis tools and approaches can be proposed. This view underlines situation-based action with respect to

tasks, relationships and informations for project management and managers. Accordingly, the suggested model could have various implications for theory, practice, and teaching and learning of PM.

In addition to these possible conceptual and practical implications for PM and its education or training, the proposed model and its underlying rationale could also have further implications and more generalizable inferences. One of these further inferences in the field of resource management will be discussed as in the next section.

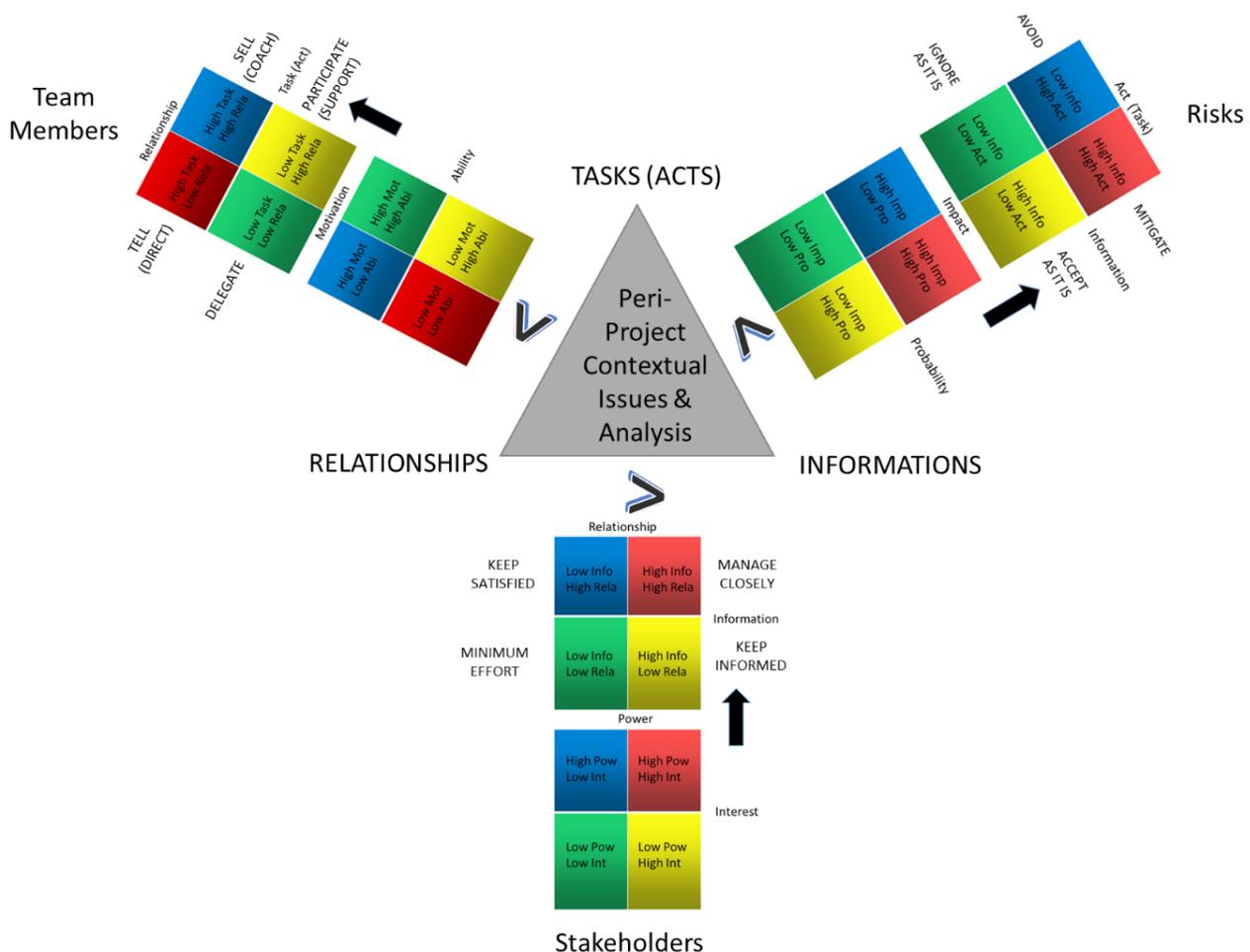


Figure 7 – Situation-Action Model for Project Contextualization

Situation-Action Model for Human and Robot Resource Management

Robotics and Artificial Intelligence Technologies are growing rapidly. Related trends such as Industry 4.0 are gradually diffusing into our real practices. Parallel to these trends and progresses, issues with

respect to incorporation of robot resources into work force are commonly discussed (Cardinali, 2017). Accordingly, the original Situational Leadership Model and newly suggested Situation-Action Model could also be applied to address certain issues with respect to human and robot resource management (Figure 8).

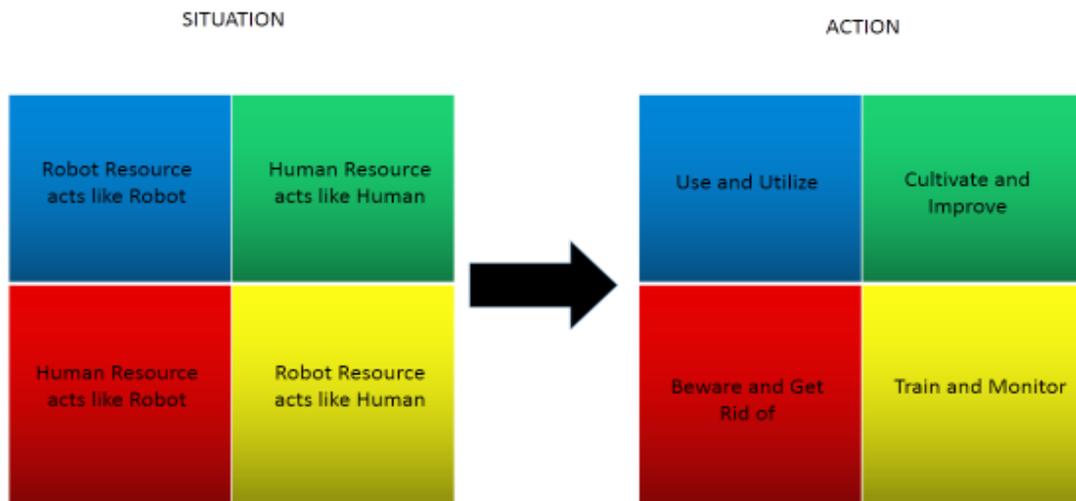


Figure 8 – Situation-Action Model for Human and Robot Resource Management

According to this modeling, for different situations are identified in a work environment where humans and robots work together (and one distinction between them could be their appreciation of contextual issues in a fulfilling manner).

- Human acts like (and understood as) Human (first case as the most acceptable situation)
- Robot acts like (and understood as) Robot (second case as the acceptable situation)
- Robot acts like (and understood as) Human (third case as the acceptable situation but with certain caution)
- Human acts like (and understood as) Robot (fourth case as the unacceptable situation to be treated with extreme caution)

While here the first and second cases could be considered as straightforward and commonsense (for the time being), the third case demands particular attention, as it is increasingly becoming common, causing confusion and conflict that may demand certain caution. For instance, different chatbots that could be very hard to distinguish from real persons are increasingly being used in different areas and these may generate different real-life consequences and people reactions (Shewan, 2018). The fourth case may not be perceived itself a critical issue at the moment, but I believe it is also becoming increasingly important, since, as human beings, we have the risk of becoming more robot-like creatures (Medeni, 2018).

Based on these four situational cases, four different action choices are suggested, as well.

- Cultivate and Improve (for the first case as the most acceptable situation)

- Use and Utilize (for the second case as the acceptable situation)
- Train and Monitor (for the third case as the acceptable situation but with certain caution)
- Beware and Get Rid of (for the fourth case as the unacceptable situation to be treated with extreme caution)

The rationale for these choices are simple and straightforward. For the first case, it is good to have and know such humans that can behave like humans, and so it is suggested that the relationships with them be cultivated and the collaborative tasks be improved. With respect to the second case, it is also normal to make use of and utilize robots that function and operate as expected and that could be easily recognized as they are without being confused with humans. For the third case, however, as there may arise certain confusion and challenges, it would be useful to take action with caution and care. This does not mean to consider these human-like robots as threats, rather they should be treated in a positive manner to improve their potential. On the contrary, the fourth case may cause a more significant threat to the workplace (and humanity) and should be treated accordingly.

Although such modeling is a very generic and abstract simplification of (human and) robot nature, and we may have to change what we understand about human and robot nature in 10 years, I still hope it could contribute to the explanation and utilization of real life cases that are increasingly becoming common. Future work could better interlink this new modeling with existing ones such as that of Mori (Mori, 1970), to step outside from the 'uncanny valley'.

Conclusions and Future Work

This paper revisits and adapts the Situational Leadership Model in order to develop new perspectives to be applied into project and resource management. Accordingly, it has presented the related reflections and elaborations towards developing and applying the Situation-Action Model firstly for Project Contextualization, and secondly for Human and Robot Resource Management.

One of the key aspect of these modelings is the opportunity to interlink three or more different parameters or variables in a logical and visual manner, furthering the existing two dimensional (2*2) ones, which could be the subject of future work. For instance with respect to Situational Leadership Model, there can be seen a negative cause and effect relationship between Ability and Task, i.e. If Ability is High the Task Behavior is Low and vice versa, considering the four given cases among all possibilities (Styles (S) in Figure 1):

- If Ability Condition is Low (-) and the Task Behavior is High (+), Then
 - Motivation and Relationship are Low (-) (S1)
- Or
- Motivation and Relationship are High (+) (S2)

- If Ability Condition is High (+) and the Task Behavior is Low (-) Then

- Motivation is Low (-) and Relationship is High (+) (S3) Or
- Motivation is High (+) and Relationship is Low (-) (S4)

Based on <https://projmngtguru.blogspot.com/2017/12/project-team-leadership-tools-techniques.html>

If such logical rationales can be found it could be possible to identify and visualize these relationships in a way that was not possible before with 2*2 (or 2*2*2) illustrations (Figure 9). In this visualization, Ability-Task relationship provides the main axis (in bold/red), as there is a clearly explicit negative relationship between them: If the Ability of the team member is high, there is no need for the leader to focus on the Task Behavior, and if the Ability of the team member is low, there is surely a clear need for the leader to focus on the Task Behavior. However, it is not possible to easily identify such a clear connection between Motivation and Relationship Behavior, but based on and derived from the main Ability-Task relationship as an IF THEN connection, at the end certain possible cases can be identified and located according to sub-axes of Motivation-Relationship placed on the main Ability-Task axis.

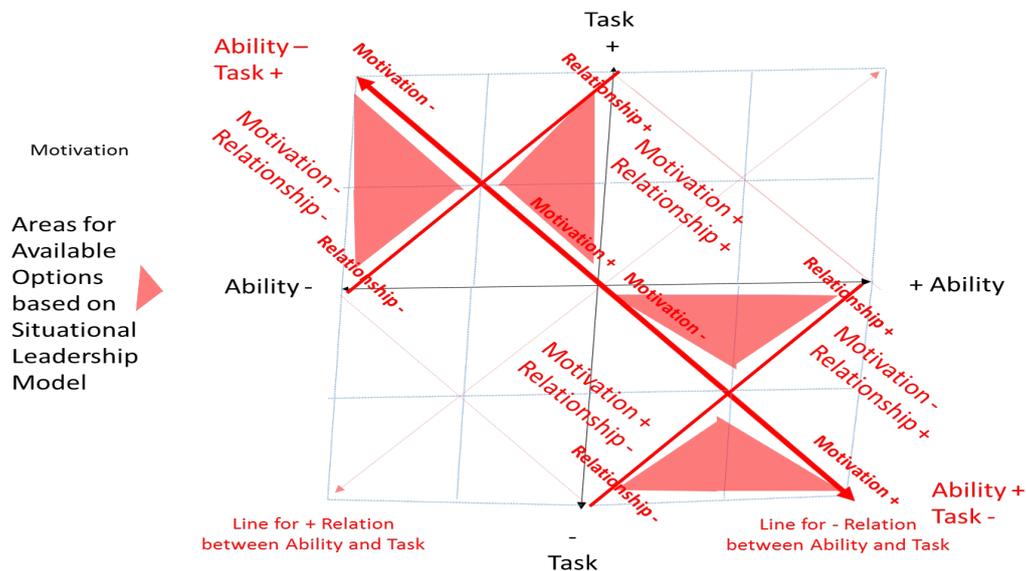


Figure 9 – Visualizing Analytical Relationship among the Components of the Situational Leadership Model

Similar rationales and visualizations could also be developed for stakeholders and risks components of project contextualization, as well as human and robot resource management that are discussed before, depending on the nature of underlying parameters/variables and their relationships. Even this method of visualization can be generalized, as soon as certain conditions are met such as whether there is a positive or negative relationship between the primary (main axis) and secondary (sub-axis) independent (situation), and dependent (action) variables and whether the variables can be classified accordingly.

Another prospect that these models suggest could be to identify the first best and first worst (, which are more apparent), as well as the second best and second worst options (perhaps similar to Type

I and Type II error identification in Statistics). Such prioritization and classification could also be useful in certain (if not all) areas that are mentioned in this paper.

At the end, all these analysis, propositions and inferences could be considered mostly as thought exercises. Nevertheless, I still hope they could shed light on future work for researchers in different, related areas.

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References

- Awati K. (2009) Cox's risk matrix theorem and its implications for project risk management <https://eight2late.wordpress.com/2009/07/01/cox%E2%80%99s-risk-matrix-theorem-and-its-implications-for-project-risk-management/>
- Bryson John M. (2004) What to do when stakeholders matter: stakeholder identification and analysis techniques. *Public Management Review*, vol. 6 (1), pp.21-53, London: Routledge
- Cardinali Fabrizio (2017) Human and Robotic Resources Management: how can we innovate LD and HR departments in order to preserve human creativity and critical thinking at the digital workplace and survive the 4th industrial revolution? <https://www.knowhedge.com/single-post/2017/06/13/HRRM-Human-and-Robotic-Resource-Management-Surviving-the-4th-Industrial-Revolution-innovating-creativity-and-capabilities-of-our-Human-Resources>
- Cox L. Anthony (2008) What's Wrong with Risk Matrices? *Risk Analysis*, vol. 28, pp. 497-512. doi:10.1111/j.1539-6924.2008.01030.x
- Eden C. and Ackermann F. (1998) *Making Strategy: The Journey of Strategic Management*. London: Sage Publications
- Fishers (2017) Situation-Based Leadership and Employee Readiness <https://mep.purdue.edu/news-folder/situational-leadership-a-guide-to-coaching-employee-performance/>
- Hersey P. and Blanchard K.H. (1977) *Management of Organizational Behavior: Utilizing Human Resources* (3rd ed.). New Jersey, Prentice Hall
- Matrix Management (2017) <https://projmgtguru.blogspot.com/2017/12/project-team-leadership-tools-techniques.html>
- Medeni T.D. (2018) AYNA ANYA, ANLA-YANA. <https://atillaturkanikutuphanesi.wordpress.com/ortuluden-aciga-aciktan-ortuluge/>
- Mendelow A.L. (1981) Environmental Scanning – The Impact of the Stakeholder Concept, ICIS Proceedings, p. 20.
- Mori M. (2012) [1970] The uncanny valley. *IEEE Robotics & Automation Magazine*, vol. 19 (2), pp. 98–100. doi:10.1109/MRA.2012.2192811
- Project Management Closeout Tools & Techniques (2017) <https://projmgtguru.blogspot.com/search/label/Stakeholder>
- Qualitative Risk Analysis (2017) <https://projmgtguru.blogspot.com/2017/12/project-risk-management-tools-techniques.html>
- Rachel Thompson (2018) Stakeholder Analysis https://www.mindtools.com/pages/article/newPPM_07.htm
- Shewan D. (2018) 10 of the Most Innovative Chatbots on the Web. <https://www.wordstream.com/blog/ws/2017/10/04/chatbots>
- Situational Leadership Model for Project Management <https://www.project-management-skills.com/situational-leadership-model.html>