

## **Strengthening Collaboration through Perception Alignment: Hybrid Workplace Leadership Impact on Member Awareness, Understanding, and Learning Agility**

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### **Abstract**

The recent development of cross-functional project initiatives and implementation of remote technology applications is changing the leader and team member working environment that influences their interaction and collaboration with other teams/customers/stakeholders/providers/any related parties to compete in the rising digitalization and VUCA (volatility, uncertainty, complexity, and ambiguity) situation. This research wants to dissect how the influence of hybrid workplace leadership capabilities on the awareness, understanding, and learning agility of cross-functional project team members to foster team perception alignment and achieve strengthened collaboration. Researcher dissects individual team members' mental processes (awareness of the intended purpose, understanding of self-others, and learning agility) that connect leadership capability and team perception alignment to enhance collaboration during hybrid workplace implementation. This study is a quantitative research methodology, collecting data through a questionnaire survey and then analyzing data from 99 respondents using Partial Least Squares Structural Equations Model (PLS-SEM). Based on the result of this study, hybrid workplace leadership impacts the awareness of purpose. Then awareness affects the understanding of self and others, and both affect the learning agility of each team member, which influences the alignment of perceptions in the work team. This alignment of perceptions contributes to the collaboration process with other teams/organizations.

**Keywords:** *Collaboration, Perception, Learning Agility, Hybrid Workplace, Awareness*



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### **INTRODUCTION**

Economic and business sectors are facing significant strategic environmental change due to increasing digitalization and the accompanying VUCA situation. It continues to shift and strengthen the growth of the service sector, both in terms of area scale and speed of this sector growth compared to the goods sector (Spohrer & Maglio, 2008). The limitation of an organization's ability to continuously analyze and adjust concerning the breadth, speed, and complexity of the changes that occur makes organizations aware that this is beyond their capacity to deal with it alone. Tangi et al. (2021) concludes that collaborative environment formation in an organization influences digital transformation. An organization that wants to ensure its competitive advantage must develop collaboration capabilities to integrate various resources from various related parties, not only in itself, to ensure it can continue innovations from the services it produces (Lusch et al., 2007).

The collaboration integrates competencies and capabilities possessed by each entity in the collaboration process. A project network scope beyond the boundaries of a single organization operates in an environment of overlapping boundaries whereby multiple organizations simultaneously seek to ensure their strategic objectives are realized through a single strategic project (Haniff & Galloway, 2022). According to Chi et al. (2022), collaboration and cooperation develop by first creating a vision rather than avoiding conflict, by ensuring that everyone can

understand and imagine in a complex setting of working environments, and by treating collaboration and cooperation as one of the critical elements for long-term success.

Organizations, including groups/teams, commonly become one of the mediums of exchange that masked service-for-service exchanges, that collect services from an actor (employees) for giving indirect exchange service to ultimate customers (Lusch & Vargo, 2014). It's related to the Utami & Zakiy (2020) study that found that the leader-member exchange had a positive effect on work engagement and impacted the organization through employee performance. Some of the actors in the position of the indirect service exchange to the organization's ultimate customers (e.g. accounting, personnel, computer technicians) not easy or often faint and distorted to hear the voice of the intended beneficiary and lose a sense of the purpose of their service provision to intended beneficiary of organization.

The development of the current situation encourages organizations to use new digital technologies in their ongoing processes in everyday organizational life (Warnera & Wager, 2019). The COVID-19 pandemic boosted the adoption of digitalization, including implementing a hybrid workplace where forms of online or remote interaction between entities and parties become more expansive and intense. Implementation of the hybrid workplace in work teams consisting of cross-functional members or dealing with various parties who are not physically/geographically close to each other. Related with it, several countries with economic centres geographically distant from the capital city of the centre of government, such as Indonesia has plans to move the country's capital city from current economic centre.

Interaction between entities in real life is an interaction between individuals and teams representing the entity. Warnera and Wager (2019) stated that the organization needs agility of their people as a core mechanism to implement digital transformation as a renewal of an organization's business model, collaborative approach, and culture on a strategic level.

This study explores the influence of leadership capabilities, specifically in cross-functional project teams with hybrid workplace implementation, on cross-functional team member awareness of the intended purpose, understanding of self, others, & project resources, and learning agility. Then look at its relationship to the alignment of team perceptions and inter-team/organizational collaboration.

Several internal and external organizational factors influence team collaboration, i.e. strategy governance, organization/business process, information and computer technology infrastructures. However, considering that it is more valuable to formulate a human interaction framework as a critical factor for every organization, this research focuses on the leadership of team leaders, the mental process of the team member, and the perception interaction between members.

There have been few studies on leadership in connection with remote or virtual workplace implementation in a pandemic situation, such as Mitchell & Brewer (2021) and Newman & Ford (2021), but rarely explore the interactions with individual mental processes (awareness, understanding, learning agility) and their impact on collaboration, especially in cross-functional project teams whose members may rarely know each other before. Considering internal-to-the-firm conditions, resources, and capabilities essential to successfully maximize collaboration with users (Ghasemzadeh et al., 2022), research on the dynamics of mental processes of team members is expected to contribute to strengthening collaboration.

## **LITERATURE REVIEW**

### **Hybrid Workplace Leadership Capabilities with Awareness of Purpose and Understanding of Self & Others**

Haniff & Galloway (2022) find that effective leadership, project governance, and client complexity are essential points for developing collaborating organizations in inter-organizational projects to strengthen alignment of strategic. A new challenge appears to the teams, with some members using face-to-face contact and others using technology-supported collaboration, as known by hybrid teams (Mitchell & Brewer, 2021). Leading workforces become a challenge for a leader. Lusch & Vargo (2014) said that team members as actors have an ability to act purposefully within structures (such as norms, experientially and socially acquired attitudes) of the agency (group/institution).

Newman & Ford (2021) explains five paces to lead virtual workplace team by better inform virtual employees, begin by defining and explaining the new reality, maintaining the organization culture, reinforcing the perception of leader trustworthiness, and upgrading leadership communication methods and tactics. Virtual employees must be aligned with the organization's cultural values and devotion to its mission. Considering member dispersed location, a leader must be sure all members know, aware, and commit to the mission.

Leonardelli (2021) explains that in a remote workplace context, necessary to build and sustain a healthy intergroup relationship between leaders and their remote workforce. Based on a group of identities, there are three main strategies to lead the workforce: (a) give "them" greater autonomy to facilitate doing work, (b) build honest intergroup relationships, and (c) become a champion of "us".

Mitchell & Brewer (2021) concluded several hybrid team leadership strategies:

- a. Create a flexible and productive work atmosphere in which team members can make their own decisions.
- b. Establish open and honest intergroup relationships
- c. Communicate via different methods, prioritizing remote-first
- d. Define your goals and collaborate effectively.
- e. Ask for team feedback on needs, roadblocks, and feelings in a deliberate manner.
- f. Check team bond and make a chance to improve work connection and team bonding.
- g. Set aside time for inclusive synchronous collaboration
- h. Set up and communicate meeting agendas and targets, preparing for an inclusive and productive meeting.
- i. Give appreciation and reward regarding individual and group accomplishments.

Thus, we hypothesized:

H1a. Hybrid workplace leadership capabilities significantly influences the awareness of purpose.

H1b. Hybrid workplace leadership capabilities significantly influences the understanding of self & others.

### **Awareness of Purpose with Understanding of Self & Others and Learning Agility**

Hiatt (2006) concludes that awareness reflects someone's knowledge of the source of change, the reason behind creating change, and not changing risk. Someone's thoughts regarding their condition in the future projection, achievement of goals, and future desired states influence current behaviour, action, and resource exchanges (Lusch & Vargo, 2014).

Wang et al. (2021) find that the relational process to enhance the efficiency of coordination, understanding facilitation, and establishing robust cooperation and communication can be interpreted as a shared vision. Angtayan (2019) explains a few factors related to people's awareness

of change: (a) existing state of individual view, (b) how a person views a situation, (c) the sender's reliability, (d) the spread of false information or rumours, and (e) the debatability of the rationale for the change.

Kempowsky et al. (2006) construe three stages of situational awareness regarding various mental models; there are:

- a. The elements, their qualities and dynamics are provided by a perception of the elements in the environment; discovering the relevant elements, i.e., what is required, is dependent on the context.
- b. Current situation comprehension concerns the meaning of information to the operator's responsibilities and objectives and appropriately portrays the environment.
- c. Future projection, or the ability to employ a mental image to guide different perceptions and foresee future events.

Herewith some hypothesis regarding several related study above:

H2a. Awareness of purpose significantly influences the understanding of self & others.

H2b. Awareness of purpose significantly influences the learning agility.

### **Understanding of Self & Others with Learning Agility and Perception Alignment**

Morrison (2004) defines the understanding of others as a person's ability to correctly interpret another's thinking, desires, and emotions. This is close to empathy, which defines a person's ability to understand one's perspective and distinguish the emotional state that the other person is currently feeling to provide the proper response (Wispé in Morrison, 2004).

Meanwhile, Gallagher & Frith (2005) also stated that the well-known term theory of mind is defined as the ability to explain and predict other people's behaviour, for example, beliefs and desires, attributing to independent mental states. Catmur et al. (2016) conclude that the critical process of understanding others is self-related processing. The central concepts for individual mental processes and social behaviour are action perception, empathy, cooperation, and intergroup interaction based on self-other understanding. Individuals who interpret and engage with the social world must understand how to relate with others as a backbone and develop their self-other understanding.

Böckler et al. (2017) study said that mental training in healthy adults could enhance sensing another person's mental process and understanding of others' capabilities. They were improving their understanding of self and others, starting with an understanding of themselves. Their study participants improved their understanding of themselves by identifying different inner parts and negative valence parts.

Based on several studies and discussions, the following hypothesis is predicted.

H3a. Understanding of self and others significantly influences the Learning Agility.

H3b. Understanding of self and others significantly influences the Perception Alignment.

### **Learning Agility with Perception Alignment**

Learning agility describes a person's desire and ability to learn various competencies that appear to produce the best performance from the start or when there is a change in the work process (Lombardo & Elchinger, 2000). Warnera and Wager (2019) research conclude that organization needs agility of their people as a central process to update strategy regarding their business processes, collaborative style, and organizational culture to implement digital transformation. Jarvela et al. in Hmelo-Silver (2018) explain that shared metacognitive in reviewing and controlling their cognitive thinking, maintaining motivation, managing their emotional

condition, and behavior during the learning process influence success in collaboration tasks. Sharing at a metacognitive level is an interaction of cognitive and non-cognitive processes between parties (Jarvela et al., 2019).

An actor (individual) improving skills and competencies and feeling the impact of achieving targets and learning will increasingly believe in the importance and benefits of exchange and being of service to each other (Lusch & Vargo, 2014). It is related to Meilani et al. (2021) study regarding the individual level of organizational learning that can be achieved if there is a social transfer of knowledge between individuals to various other individuals due to a shared interpretation.

Four main factors affect a person's agility in learning from the results of factor analysis by Lombardo & Elchinger (2000), consist of:

- a. People Agility, diligently looking for another input, point of view, thinking and new member to compare with their thoughts and adapt to the critical condition.
- b. Results agility always produces perfect and meaningful output supported by the innovation group in all situations.
- c. Mental Agility, engaged with some new ideas, have no issue with the dynamic condition, analyses problems, and mature to build a network in adaptive processes.
- d. Change Agility, highly motivated and cultivate motivation to face transformation and change process, continuous learning, and build adversity question to meeting dynamic of changes.

Herewith are some hypotheses considering several studies:

H4. Learning Agility has a significant impact on Perception Alignment.

#### **Perception Alignment with Inter-Team/Organization Collaboration**

The exchange of knowledge and skills as a central part of operant resources from one party/individual to another party/individual is part of the premise that forms the basis for the formation of services and products (Lusch & Vargo, 2008). How broad and deep, when, how, and to whom the exchange occurs in the activity or work based on various decisions made by the party/everyone involved in an interaction.

Several studies have explored the decision-making process to reveal the dynamics of interaction and perceptions between the parties who meet each other. Some researchers utilize game theory to model objectively rational decision behaviour. As the extends, arise hypergame with different views represent the differences in each player's information, beliefs, and understating of the game (Kovach et al., 2015). Hypergame assumes that decision-makers perceive nature's actions differently and subjectively in real soft problematic situations.

Putro et al. (2000) explain the typical set of strategies and preferences and face nature's uncertain behaviour in a group of decision-makers by examining several adaptive learning procedures that occur repetitively so that it becomes an opportunity to improve their present perception of the nature's behaviour. Herewith are the following features of learning procedures for the group of decision-makers to learn the nature's game (Putro et al., 2000):

- a. Guide the group of decision-makers to learn not only the nature's preference over the outcomes but also the set of strategies available for the nature.
- b. Consist of several activities there are (a) choosing actions based on current perceptions and rationality adopted by decision-makers, (b) revising perceptions about nature, which are represented by the elements of a genetic algorithm (reorganizing knowledge according to past experience in order to improve performance), and (c) it is impossible to collect all relevant information at one time, clarifying the nature's behaviour only able by improving perception about the behaviour by trial and error.

- c. Iterating interactions to learn the nature's set of strategies and preferences also get some important information. By doing this, they have chance to improve the populations of perceptions close to the true nature's game.

Takahashi et al. (2004) study used four different types of models of decision situations in a polygent system according to the degree and quality of the mutual relationships among the agents, namely simple hypergame (nonmutual relationship), symbiotic hypergame (some mutual relationship), hypergame sharing the same value system (consistent mutual relationship), and ordinal non-cooperative game (complete mutual relationship).

Concerning the theory and various recent studies above, the following hypotheses are predicted:  
H5. Perception Alignment has a significant impact on Inter-Team/Organization Collaboration.

### **Inter-Team/Organization Collaboration**

Thompson, A. M. et al. (2008) defines collaboration as an interactive process between organizations that involves negotiation, development and assessment of commitments, and implementation of those commitments. Organizations need agility as a core mechanism to implement digital transformation in their strategic renewal of an organization's business model, collaborative approach, and culture (Warnera & Wager, 2019). There are multiple instances of an organization building significant collaboration and partnership for digital technology, co-developing new solutions in close alliance with other organization sectors and specialized technology providers (Pramanik et al., 2019).

Recourse dependencies influence collaboration dynamics in entrepreneurial ecosystems among actors and structural, operational, and relational embeddedness factors (Hernández-Chea et al., 2021). Co-creating in business networks is expected to enhance an organization's capability (Garmann-Johnsen, 2021). Building group collaboration needs to cultivate task and maintenance behaviour among the group member and resolve/manage self-interest behaviour. Thompson et al. (2007) conceptualize five collaboration process variables, namely:

- a. Governance, to collaborate must understand the process that happens to make decisions about rules that will govern all parties' relationships and behaviour.
- b. Administration, to push the moves from governance to act with purpose to achieve several purposes, an administrative structure should exist.
- c. Organizational Autonomy, maintaining their unique identities and organizational authority separate from a collaborative identity creates tension between collective interest and organizational self-interest.
- d. Mutuality, based either on a variety of interests, shared interests, or recognition and passion for a situation that goes beyond an individual organization's mission, then collaboration should give mutually beneficial interdependencies.
- e. Norms, changes in duty perceptions over time as society becomes less unstable.

### **RESEARCH METHOD**

This study is a mono-method quantitative research methodology with the philosophy of the positivism and deduction theory development approach. This research utilizes surveys, primarily questionnaires, to collect the data and then analyze it statistically through the Partial Least Squares Structural Equations Model (PLS-SEM). Researchers chose PLS-SEM because Hair et al. (2011) said PLS-SEM could analyze the cause-effect relations and maximize the explained variance of the dependent latent constructs, contrary to covariance-based SEM focusing on reproducing the theoretical covariance matrix. In this study, there is a dependent latent construct in the form of

inter-team/organization collaboration with five components and perception alignment with four components, where each component has several indicator items; details of the construct can be seen in the model diagram.

Sarstedt, M. et al. (2019) stated that PLS-SEM with hierarchical component models could be used to provide a construct on a more abstract dimension (as a higher-order component), on the other side, become more concrete subdimensions (as a lower-order component). It is related to this research that has six higher-order components (HOC) variables with an initial research framework, as seen in Fig 1. Each HOC comprises several lower-order components (LOC) with some item indicators. The structural model is complex (many constructs and many indicators) so it is considered select PLS-SEM (Hair et al., 2011).

The model constructed as a reflective-reflective type, as seen in Fig. 2, and used disjoint two-stage approach used for specifying and estimating statistical analysis. Researchers using the SmartPLS ver 3.3.9 application based on Ringle et al. (2015) work as statistical tool for this research.

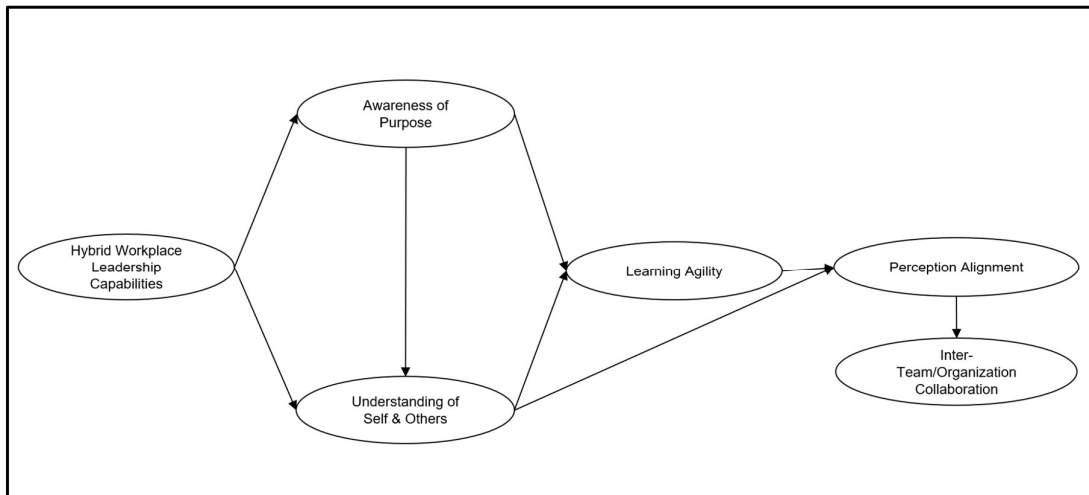


Fig. 1. Initial Framework of the Research

### Sampling technique

The unit of analysis is individual, and characteristics of research subjects are employees with experience working in the last three years on project teams with cross-functional members and implementing a hybrid workplace. It was conducted with a non-random sampling approach, considering the characteristic of the targeted respondent. Sampling methodology with purposive sampling technique methodology was used. This study was conducted as cross-sectional research using one-time frame data gathered from April 30th until May 20th, 2022, and due to the Covid-19 pandemic this survey makes as online questionnaire survey to potential respondents.

The questionnaire was distributed through online groups, direct messages, and support for message distribution to prospective respondents who predicted to have the characteristics of the intended experience from various types of organization. 111 respondents filled out the online survey questionnaire, but 12 responses do not have proper work experience requirement to become respondents of this survey. Finally, the questionnaire data from 99 respondents was processed for the following analysis steps.

Considering that most Indonesian people use Bahasa Indonesia, the questions at this questionnaire were using Bahasa Indonesia.

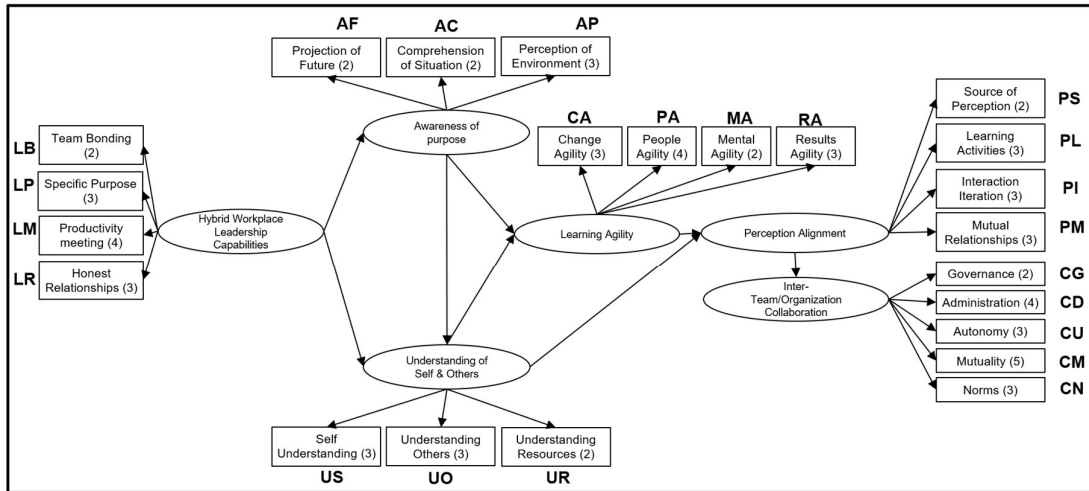


Fig. 2. Initial Model Diagram

The questionnaire comprised four parts, at the first section talk about general introduction telling this study purpose, and the researcher's declaration of respondent privacy and confidentiality, also appreciation for their corporation to filled-out this survey. The second part about the respondent screening questions to identify the appropriateness of the respondent's working experience in cross-functional project teams and the implementation of the hybrid workplace at the time of the project team's work. The third part gathered data about personal, project team profiles, and virtual/online application/tools/technology utilization. Finally, the fourth part of the questionnaire comprised research variable questionnaire items.

According to Hair et al. (2014), the minimum number of PLS-SEM samples is ten times the largest number of structural paths directed at a particular latent construct in the structural model. Structural paths directed to each construct, especially at the lower-order component (LOC), can be seen in Fig. 3. The largest number of structural paths on perception alignment variables, so calculating ten times seven, the minimum number of samples is 70 samples.

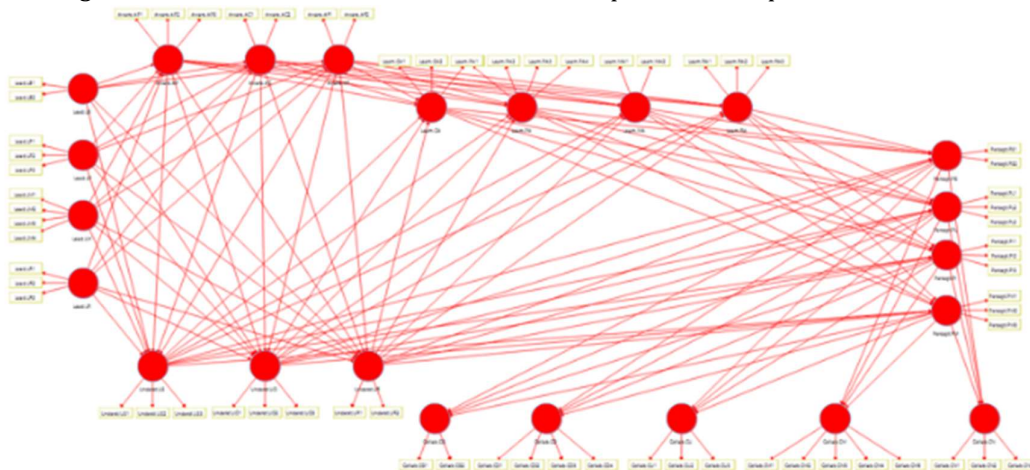


Fig.3 Model Design of Lower-Order Component



### **Measures**

There are two higher-order components (HOC) variables measurement from the current study with adjusting for this context and another four variables are new measurement developments.

Hybrid workplace leadership capabilities measurement was developed based on a combination of several variables highlighted in J. Leonardelli (2022) and A. Mitchell & P.E. Brewer (2021) research articles. There are four variables as a lower-order component: cultivate team bonding, clarify specific tasks and purpose, make productivity meetings and work process, and build honest relationships, with a total of 12 items of Likert scale. Sample item entails "Project Leader emphasizes the idea of shared identify as "one team" unity based on team common purpose".

Measurement tools for awareness of purpose were developed based on a combination of several key points highlighted by Kempowsky, T. et al. (2006) research articles and Hiatt (2006) book. There are three variables as a lower-order component: perception of the elements in the environment, comprehension of the current situation, and projection of the future status, with seven items of Likert scale. Sample item entails "I aware whats the problem if the task/project is not done well".

Understanding of self & others is measured by a tool developed based on a combination of several variables highlighted in Morrison, J. (2004), Catmur, C. et al. (2016) and Gallagher, H. L., & Frith, C. D. (2003) research articles. There are three variables as a lower-order component: self-understanding, understanding others, and understanding resources, with eight items of Likert scale developed. Sample item entails "Knowing the most motivating drive and interest of self-choices based upon the past experiences".

Learning agility was measured with 12 items of Likert scale by Gravett and Caldwell (2016), from the adoption and testing of 25 items scale developed by Tripathi et al. (2008). Sample item entails "I seek out people to learn about subjects outside my work field". The Cronbach's coefficient of their study was 0.765.

Measurement tools for perception alignment were developed based on a combination of several critical points highlighted by Putro, U. et al. (2000) and Takahashi, S. et al. (2004). There are four variables as a lower-order component: learning source of perception, perception learning activities, interaction iteration, and the mutual relationships among the agents, with eleven items of Likert scale developed. Sample item entails "I map the trends of team members/partners as seen in project team problem solving/decision making".

Measurement for inter-team/organization collaboration adopts 17 items Likert scale developed by Thomson, A. M. et al. (2007). The sample item was "You, as a representative of your organization in the collaboration, understand your organization's roles and responsibilities as a collaboration member." Nine items have an r-square equal to or more than 0.50, and the remaining eight are between 0.20 and 0.48, making it possible to have valid but unreliable measures of a particular concept (Bollen, 1989; Carmines and Zeller 1983). This scale needs cross-validation on other independent samples.

### **Data Analysis Method**

The result from data collection by questionnaire were analyses based on partial least squares structural equation modelling (PLS-SEM) by Smart-PLS software. Data analysis for this study uses the two-stage approach of PLS-SEM by using Hierarchical Component Model (HCM) with reflective-reflective higher-order constructs type. The questionnaire was developed first by setting the Higher-Order Model (Fig 1) with six higher-order (HOC) component variables. Each HOC variable

develops from lower-order components (LOC), each with several item indicators. This study uses the disjoint two-stage approach to analyze the result of this hierarchical component model based on several steps from Sarstedt et al. (2019) and rules of thumb from Hair et al. (2011).

## **FINDINGS AND DISCUSSION**

### **Measurement Models**

Statistical analysis for measurement models starts with an analysis of average variance extracted (AVE), convergent validity, discriminant validity, and reliability by the composite reliability for the indicators of the variables in a lower-order component. There is two iteration analysis process for a lower-order component in this study.

The result of the first iteration analysis of the lower-order component finds several conditions as detailed in Table 1. Start from convergent validity have 5 components with the Average Variance Extracted (AVE) under 0.50, internal consistency reliability of 2 components has the Composite Reliability (CR) under 0.70 and indicator's loadings of 6 component lower than all its cross-loadings. Indicator reliability of 2 indicators have loading values under 0.40 and 3 indicators have loading values between 0.40 and 0.70 that leads to an increase in convergent validity AVE. Based on this result, researcher eliminate 8 component indicators and doing second iteration of a lower-order component.

Second iteration analysis of lower-order components finds as detailed in table 1, with result of all components passed AVE standard for convergent validity, CR result passed consistency reliability, discriminant validity (Fornell–Larcker criterion) and loadings values were higher rules of thumb. Indicator reliability shows there are still five indicators with loading values between 0.40 and 0.70, but convergent validity and composite reliability are currently at the suggested threshold value, so five indicators are not eliminated from the model scale. Then, the lower-order components' latent variable extracted to measure the higher-order construct in the next step.

**Strengthening Collaboration through Perception Alignment: Hybrid Workplace Leadership Impact on Member Awareness, Understanding, and Learning Agility**

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|            | 1st iteration Lower-Order Component |                       | 2nd iteration Lower-Order Component |                       |
|------------|-------------------------------------|-----------------------|-------------------------------------|-----------------------|
|            | Average Variance Extracted (AVE)    | Composite Reliability | Average Variance Extracted (AVE)    | Composite Reliability |
| Aware.AC   | 0.832                               | 0.908                 | 0.831                               | 0.908                 |
| Aware.AF   | 0.823                               | 0.903                 | 0.823                               | 0.903                 |
| Aware.AP   | 0.728                               | 0.889                 | 0.728                               | 0.889                 |
| Collab.CD  | 0.650                               | 0.881                 | 0.650                               | 0.881                 |
| Collab.CG  | 0.756                               | 0.861                 | 0.756                               | 0.861                 |
| Collab.CM  | <b>0.481</b>                        | 0.819                 | 0.768                               | 0.869                 |
| Collab.CN  | 0.624                               | 0.832                 | 0.623                               | 0.832                 |
| Collab.CU  | <b>0.399</b>                        | <b>0.602</b>          | 0.736                               | 0.845                 |
| Lead.LB    | 0.845                               | 0.916                 | 0.845                               | 0.916                 |
| Lead.LM    | 0.622                               | 0.868                 | 0.664                               | 0.855                 |
| Lead.LP    | 0.639                               | 0.841                 | 0.638                               | 0.841                 |
| Lead.LR    | 0.635                               | 0.837                 | 0.634                               | 0.836                 |
| Learn.CA   | 0.637                               | 0.840                 | 0.637                               | 0.840                 |
| Learn.MA   | 0.612                               | 0.750                 | 0.612                               | 0.750                 |
| Learn.PA   | 0.563                               | 0.837                 | 0.563                               | 0.837                 |
| Learn.RA   | <b>0.480</b>                        | 0.729                 | 0.627                               | 0.767                 |
| Percept.PI | 0.747                               | 0.899                 | 0.748                               | 0.899                 |
| Percept.PL | 0.596                               | 0.815                 | 0.596                               | 0.815                 |
| Percept.PM | <b>0.494</b>                        | <b>0.437</b>          | 0.643                               | 0.780                 |
| Percept.PS | 0.660                               | 0.795                 | 0.660                               | 0.795                 |
| Underst.UO | 0.535                               | 0.775                 | 0.533                               | 0.773                 |
| Underst.UR | 0.643                               | 0.783                 | 0.643                               | 0.783                 |
| Underst.US | <b>0.487</b>                        | 0.730                 | 0.725                               | 0.839                 |

Table 1. Result of Average Variance Extracted and Composite Reliability for Lower-Order Component

The next step is a statistical analysis using two iterations of a higher-order component. Analysis of the first higher-order component iteration is detailed in table 2, with result of all components passed AVE standard for convergent validity, CR result passed consistency reliability, and discriminant validity values were higher rules of thumb. One of variable, Collab.CU variable of autonomy in inter-team/organization collaboration, lower than its cross-loadings and loading value under 0.40. Process the second iteration of a higher-order component with Collab.CU elimination.

Second iteration analysis of higher-order components held and found some results detailed in table 2. Convergent validity of all the components has a value of the Average Variance Extracted (AVE) higher than 0.50. Internal consistency reliability with the Composite Reliability resulting higher than 0.70 for all components. Internal consistency reliability of variable with the Composite Reliability. Discriminant validity based on the AVE of each latent construct was higher than the construct's highest squared correlation with any other latent construct (Fornell-Larcker criterion), and all indicator's loadings were higher than its cross-loadings. Indicator reliability, as seen in detail in Figure 4, have loading value indicator 0.691 for self-understanding in understanding self and other (Underst.US). This value near 0.70 and convergent validity or composite reliability are currently at the suggested threshold value, so it is not considered eliminate.

|               | 1st iteration Higher-Order Component |                       | 2nd iteration Higher-Order Component |                       |
|---------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|
|               | Average Variance Extracted (AVE)     | Composite Reliability | Average Variance Extracted (AVE)     | Composite Reliability |
| Awareness     | 0.829                                | 0.935                 | 0.829                                | 0.935                 |
| Collaboration | 0.585                                | 0.866                 | 0.715                                | 0.909                 |
| LeadershipCap | 0.707                                | 0.906                 | 0.707                                | 0.906                 |
| LearningAg    | 0.575                                | 0.844                 | 0.575                                | 0.844                 |
| PerceptionAlg | 0.571                                | 0.841                 | 0.571                                | 0.841                 |
| Understanding | 0.556                                | 0.788                 | 0.556                                | 0.788                 |

Table 2. Result of Average Variance Extracted and Composite Reliability for Higher-Order Component

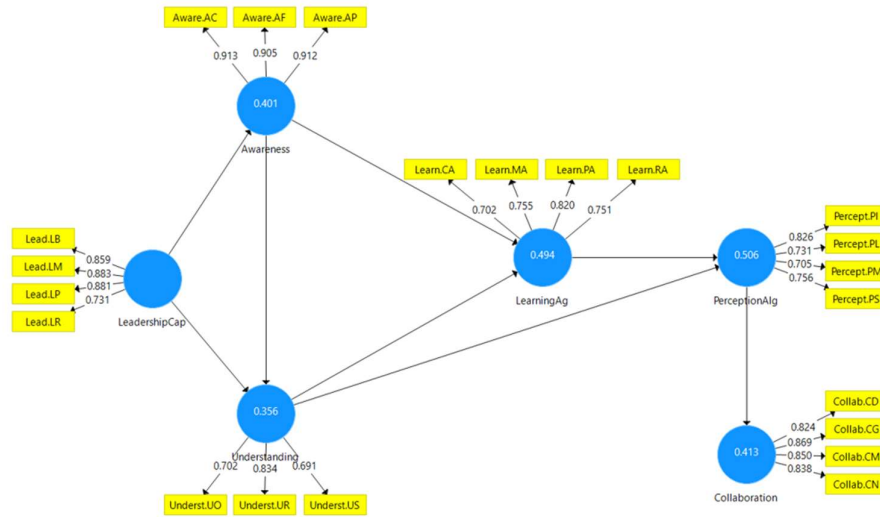


Fig. 4 Measurement Model

Based on the results of the measurement model statistical analysis that has been carried out above, the results of the measures' reliability and validity in the model shown to be adequate and continued to the structural model for second step analysis processes.

### Structural Model

Hair et al. (2011) stated that explaining the endogenous latent variables' variance of the model is the goal of the prediction oriented PLS-SEM approach. Structural model primary evaluation criteria are the critical target constructs' level or R2 and the level and significance of the path coefficients.

Researchers use SmartPLS to do statistical analysis processes for target constructs' level ( $R^2$ ), as seen in table 3 and figure 4. The result from these  $R^2$  values concludes that Hybrid Workplace Leadership Capabilities can explain 40.1% (weak effect) of awareness of purpose. Hybrid Workplace Leadership Capabilities and awareness of purpose can explain 35.6% (weak effect) of understanding of self & others. awareness of purpose and understanding of self & others can explain 49.4% (weak effect) of learning agility. Learning agility and understanding of self & others can explain 50.6% (moderate effect) of perception alignment. Perception alignment can explain 41.3 (weak effect) of inter-team/organization collaboration.

|               | R <sup>2</sup> | Q <sup>2</sup> |
|---------------|----------------|----------------|
| Awareness     | 0.401          | 0.316          |
| Understanding | 0.356          | 0.181          |
| LearningAg    | 0.494          | 0.264          |
| PerceptionAlg | 0.506          | 0.264          |
| Collaboration | 0.413          | 0.285          |

Table 3. R<sup>2</sup> and Q<sup>2</sup>

Assessment of the model's capability to predict by blindfolding procedure and Hair et al. (2011) recommended using the cross-validated redundancy to get the value of Q2. Analysis of this research data resulting in Q2, as seen in table 3, a score of all variables more than zero indicates that the exogenous constructs have predictive relevance for the endogenous construct under

consideration. Next, structural model tests regarding multicollinearity by analyzing Variance Inflation Factor (VIF) resulting all indicators has a value below 5, concluded there isn't collinearity.

### Hypothesis Test Results

|                                | T Statistics | P Values | Result   |
|--------------------------------|--------------|----------|----------|
| LeadershipCap -> Awareness     | 7.237        | 0.000    | Accepted |
| LeadershipCap -> Understanding | 1.650        | 0.099    | Rejected |
| Awareness -> LearningAg        | 4.344        | 0.000    | Accepted |
| Awareness -> Understanding     | 4.174        | 0.000    | Accepted |
| Understanding -> LearningAg    | 4.159        | 0.000    | Accepted |
| Understanding -> PerceptionAlg | 3.148        | 0.002    | Accepted |
| LearningAg -> PerceptionAlg    | 4.083        | 0.000    | Accepted |
| PerceptionAlg -> Collaboration | 8.500        | 0.000    | Accepted |

Table 4. Path Coefficients' Significance

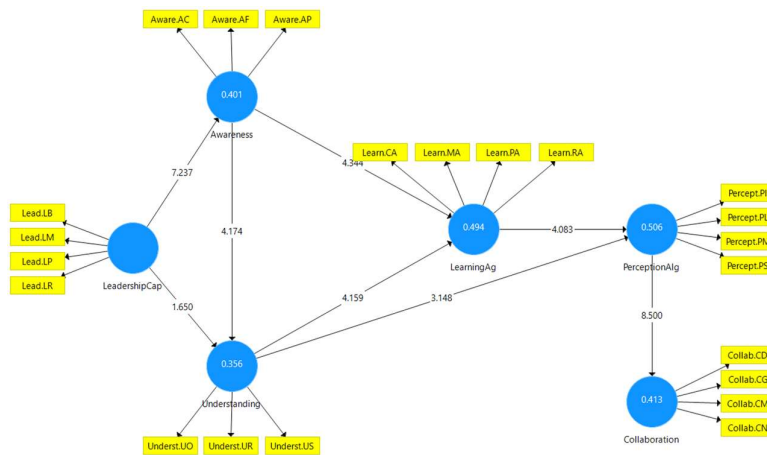


Fig. 5 Structural Model

Result of path coefficients' significance using bootstrapping with significance level of 0.05 and critical t-values for the two-tailed test are 1.96 as detailed in figure 5 and table 4.

**Hypothesis H1a.** Statistical analysis result of hybrid workplace leadership capabilities positively affects awareness of purpose and has a T statistic of 7.237 (above 1.96) and p-value of 0,000. These results are empirical indicators that hypothesis H1a is accepted, meaning hybrid workplace leadership capabilities significantly impact awareness of purpose. This study supports the Lusch & Vargo (2014) study that actors can act purposefully within structures. Team members' awareness of purpose affects the structures that the team leader forms. As said from Ausat et al. (2022) study that leader's position is critical in ensuring on organizational commitment and work performance to stays relevant in an increasingly dynamic and disruptive business environment. This is in line with Leonardelli's (2022) study, which states leaders need to focus on building an identity and awareness about groups with a unified goal and experience to become the "Us" of each team member.

**Hypothesis H1b.** Statistical analysis result of hybrid workplace leadership capabilities on an understanding of self & others has a T statistic of 0.099 (below 1.96) and p-value of 0,099. These results are an empirical indicator that hypothesis H1b is not accepted, which means hybrid workplace leadership capabilities have a non-significant impact on the understanding of self & others. Mitchell & Brewer (2021) study that one of the critical leadership strategies in the hybrid team is to build honest intergroup relations and create opportunities for strengthening work

relationships. However, Catmur et al. (2016) stated that the understanding process is self-related processing, so interpersonal relationships affect more than the relationships within one workgroup, while the leader can only influence the environment in the workgroup, which is very likely not to the interpersonal process.

**Hypothesis H2a.** Statistical analysis result of awareness of purpose positively affects an understanding of self & others and has a T statistic of 4.174 (above 1.96). These results are empirical indicators that hypothesis H2a is accepted, meaning awareness of purpose has a significant impact on understanding self & others. It is relevant to Angtyan (2019) study, which concludes that a person's view of the current state is related to people's awareness. Individual view of the current state, including the understanding of themselves. Perception of the environment elements is one of three levels in situational awareness by Kempowsky et al. (2006). This environment factors perception become one of the bases for developing understanding with others, so that awareness of purpose supports the strengthening of understanding of self & others.

**Hypothesis H2b.** Statistical analysis results that awareness of purpose positively affects learning agility and has a T statistic of 4.344 (above 1.96). These results indicate that hypothesis H2a is accepted, which means awareness of purpose significantly impacts learning agility. Hiatt (2006) stated the risk of not changing is one part that represents one's awareness. Caused by this knowledge of risk, an individual can be motivated to continue learning so that it can change appropriately according to context and needs.

**Hypothesis H3a.** Statistical analysis results of understanding self & others positively affect learning agility and have a T statistic of 4.159 (above 1.96). These results are an empirical indicator that hypothesis H3a is accepted, which means understanding self & others has a significant impact on learning agility. Jarvela et al. in Hmelo-Silver (2018) said that shared metacognitive in monitoring and controlling cognition, motivation, emotion, and behavior during the learning process influences success in collaboration tasks. Shared metacognitive happen based on understanding the position and condition of self, other people, and the various resources in the environment. With that, an individual can sort and choose the learning focus that needs to be developed to further optimize his performance and exchange resources with other people related to his project.

**Hypothesis H3b.** Statistical analysis results of understanding self & others positively affect perception alignment and have a T statistic of 3.148 (above 1.96). These results are an empirical indicator that hypothesis H3b is accepted, which means understanding self & others has a significant impact on perception alignment. The depth understanding of other feelings and behaviors will make it easier to find similarities and differences with others to encourage the possibility of harmonizing perceptions with various parties

**Hypothesis H4.** Statistical analysis result of learning agility positively affects perception alignment and has a T statistic of 4.083 (above 1.96). These results are an empirical indicator that hypothesis H4 is accepted, which means learning agility significantly impacts perception alignment. This is aligned with Jarvela et al. (2018 and 2019) said that regulating learning through shared metacognitive in monitoring and controlling cognition, motivation, emotion, and behavior influences success in collaboration tasks. Putro et al. (2000) concludes that examining several adaptive learning procedures that occur repetitively can become an opportunity to improve their present perception of nature's behavior. Lusch & Vargo (2014) stated that someone who improves skills and competencies and feels the impact of achieving targets and learning would increasingly believe in the importance and benefits of exchange and being of service to each other.

**Hypothesis H5.** Statistical analysis result of perception alignment positively affects inter-team/organization collaboration and has a T statistic of 8.500 (above 1.96). These results are an empirical indicator that hypothesis H5 is accepted, meaning perception alignment significantly impacts inter-team/organization collaboration. Relevant to Takahashi et al. (2004) study, the degree and quality of the mutual relationships among the agents can happen in decision-making. This variance of degree and quality reflects in team member interaction and the pattern of relationships it develops when dealing with various other parties.

## **CONCLUSION**

Almost all hypotheses (7 of 8) were accepted with a statistical t-value above 1.96 and a p-value above 0.00. Based on the acceptance of these hypotheses, this study can conclude that hybrid workplace leadership impacts the awareness of purpose. Then awareness affects the understanding of self and others, and both affect the learning agility of each team member, which influences the alignment of perceptions in the cross-functional project team. This alignment of perceptions contributes to the inter-team/organization collaboration.

Through this study, an organization can enhance collaboration with various other parties by ensuring the process of aligning the perceptions in the project working team that represent the organization. Based on this study, team leaders can improve the alignment of perceptions by ensuring that each team member is assigned and captures the urgency and goals that members can achieve with this implementation. In addition, ensuring that there is an opportunity to develop interrelationships between members through togetherness and introduction to understand each other and the conditions of each team member is also a critical activity that needs to be done to encourage awareness and understanding. The self-development of team members, mainly so that they can have the ability to learn about how to learn and the agility to adapt as well as the motivation to develop self-ability are critical characteristics of team members to be able to progress.

The hypothesis about the impact of hybrid workplace leadership capabilities on the understanding of self & others is not accepted. These results might be happen because this understanding variable is closely related to direct interpersonal relationships between humans, who have different experiences and expectations in the long term.

## **LIMITATION & FURTHER RESEARCH**

This study focuses on people's mental processes, interaction, and leadership to strengthen collaboration in dealing with dynamic situations. Other internal and external organizational factors impact collaboration, such as strategy governance, organization/business process, information and computer technology infrastructures, and any other factors. Considering the interconnected condition of human interaction factors with various critical components of the organization and strategic management, any further research to handle this point will be valuable.

Due to time constraints and the situation that is still overshadowed by the pandemic in the process of this research, extending this study with many and various samples in a longitudinal timeframe setting can reach a deep understanding to gain more insight for the further.

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