

Building Bridges of Knowledge: Investigating the Nexus of Strategic Alignment in University-Industry Collaborations

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Abstract

University-industry collaboration (UIC) has emerged as a key driver of innovation through enabling knowledge transfer in meeting the evolving needs of partner institutions. This research explores the profound impact of strategic alignment on the effectiveness of university-industry knowledge exchange while exploring the determinants that drive the formation of strategic alignment. This research uses mixed methods, namely a concurrent embedded model with qualitative and quantitative approaches as the main and secondary approaches. Based on empirical data collected from a survey of 126 university and industry collaborations in Indonesia. The results of this research provide substantial insight into this area and confirm the central role of strategic alignment in the success of collaborative initiatives, especially at the team level. In particular, this research underscores the superiority of cognitive expertise in teams, compared with exclusive reliance on personality traits. This research also identifies trust and bond strength as important foundations of team dynamics, while highlighting the positive influence of operational and cultural fit on organizational factors. Significantly, this research challenges initial assumptions by not finding a direct relationship between shared understanding, strategic flexibility, balancing commitments, and achieving strategic alignment. These findings have profound implications for the strategic planning and implementation of UIC initiatives. In a broader context, this research provides theoretical and managerial contributions.

Keywords: *Knowledge Transfer, Strategic Flexibility, Balancing Commitment, Cultural and Operational Fit.*

INTRODUCTION

Globalization is currently moving towards a knowledge-based economy where the production, use and distribution of goods and services depend on knowledge and thus knowledge is stated to be very important for innovation and economic growth (Ben Hassen, 2022). One of the institutions most affected by this change is the institution that actively creates and disseminates knowledge, especially universities. These changes require a shift in the role of universities/universities which are expected to be more active in supporting economic growth (Cuesta-Claros, Malekpour, Raven, & Kestin, 2022; Morawska-Jancelewicz, 2022). Technology created by universities is said to have the potential to stimulate economic growth by generating financial and social value. But universities can only become strategic assets only if they are connected with industry to strengthen, improve and accelerate the transfer of knowledge (Ben Hassen, 2022).

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The increasing trend in University-Industry (UI) collaboration is driven by several factors (Zhuang et al., 2021). For industry, pressures include rapid technological change, shorter product life cycles and intense global competition that are radically changing the current competitive environment for most companies (Amini & Jahanbakhsh Javid, 2023). For universities, pressures include the growth of new knowledge and the challenges of rising costs and funding issues, which have placed enormous resource pressure on universities to seek relationships with companies to enable them to remain at the forefront in all fields of study (Alayoubi et al., 2020) as well as increasing policy pressure for universities to help increase national economic competitiveness.

UI collaboration includes a variety of activities, structures, and concepts. Milligan, Mankelwicz, & See, (2022) defined UI collaboration “involving the exchange of resources, ideas, or influence between multiple units within a university (perhaps even individuals) and multiple for-profit entities or subunits”. Osorno-Hinojosa, Koría, & Ramírez-Vázquez, (2022) define UI collaboration as interaction that occurs between every part of the higher education system and industry, with the main aim of encouraging the process of sharing knowledge and technology. Rossoni, de Vasconcellos, & de Castilho Rossoni, (2023) underlines the important role in the UI collaboration process, namely how this collaboration is able to help overcome problems of social importance. There are three roles that universities play in collaborating with industry: contributing to knowledge production - developing and providing new knowledge; knowledge transmission - educating and developing human resources and knowledge transfer - disseminating knowledge and providing input for problem solving.

Knowledge is information combined with experience, context, interpretation and reflection (Döringer, 2021). Knowledge transfer (KT) encompasses a wide range of activities ranging from appearances in the media and in public forums to participation in bilateral projects, commercialization of research developments, application of expertise through partnerships and internships, and inclusion of broader community influences in the curriculum to enhance capabilities graduate. Ganguly, Talukdar, & Chatterjee, (2019) argues that knowledge transfer should be considered as a process, not a transaction or event. The success of this process will be seen from increased productivity and decision quality created by the recipient. It is not just about gaining new knowledge, but also about creating more productive and informed individuals.

University-Industry knowledge transfer (UIKT) has become an interesting issue in the knowledge transfer literature. In the context of University-Industry (UI) collaboration, knowledge transfer encompasses a broader range of highly interactive activities that include ongoing formal and informal personal interactions, cooperative education, curriculum development, and personnel exchange (Gamlath & Wilson, 2022). This is not only a process of technology transfer but also includes knowledge that forms the basis of the composition or intangibles that are also disseminated (Zhang & Jing, 2022). In this research the term knowledge transfer is used instead of technology transfer (see chapter 2 for a better explanation).

This research aims to build a better understanding of University-Industry interorganizational efforts in knowledge transfer by examining the effectiveness of interaction processes and conducting a literature review related to knowledge transfer in university and industry contexts.

University-Industry collaboration has a long history (Jiang et al., 2022), but recent studies still show that UI knowledge transfer is still unable to bring the desired results. Many factors have been studied for UI knowledge transfer, but recent studies still show that UI knowledge transfer still cannot bring the desired results. The fit between the two organizations remains challenging because UI has very different missions, values and ideologies and there is often distrust between the two (Abrams et al., 2019).

Noetel et al., (2023) argued for the need to create a division of values, beliefs, hopes, and a priori for a clear understanding of each other's motivations or goals, in the physical and social worlds for the purpose of sharing effective goals, about the social meaning of work and for the effective problem-solving abilities of the group. Abbasi, Billsberry, & Todres, (2022) argues that there needs to be a minimum level of congruence to enable individuals' perspectives to understand others to work together for a common goal and must adapt their strategies in response to their external congruence and that sometimes it requires investing in certain capabilities that allow for better congruence, with his partner's needs. From the perspective of inter-organizational network flows, it is argued that to better align internal and external elements requires strategic alignment as a collective level of strategic analysis (Haniff & Galloway, 2022).

RESEARCH METHOD

This research uses mixed methods, namely a concurrent embedded model with qualitative and quantitative approaches as the main and secondary approaches (Stern et al., 2021). Based on empirical data collected from a survey of 126 university and industry collaborations in Indonesia. Data collection was carried out using questionnaire survey and interview methods. Data analysis was carried out using Anova assisted by SPSS and SEM Test assisted by SmartPLS. The research model can be seen in the following picture:

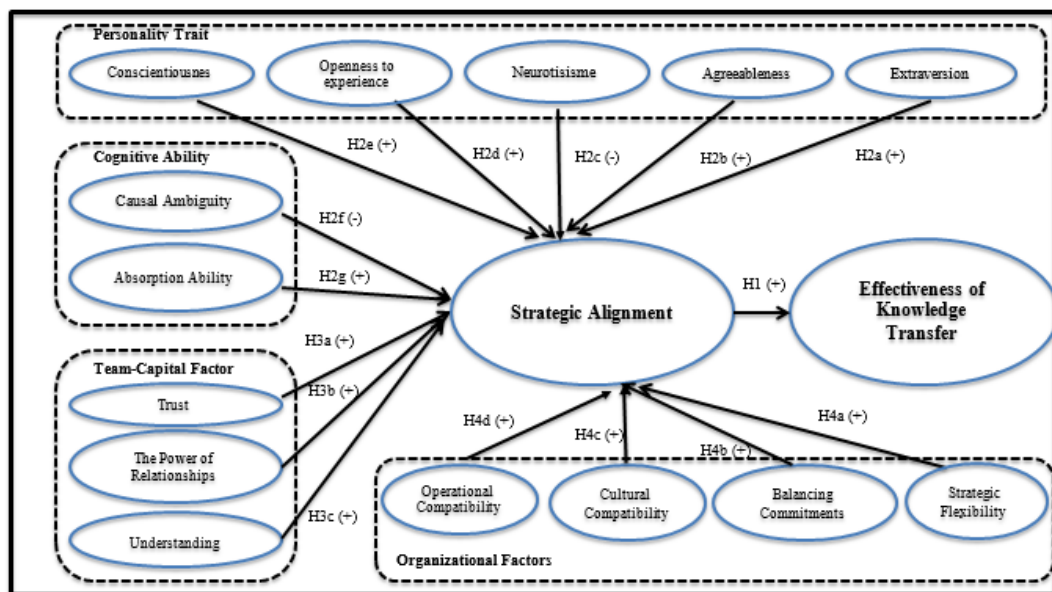


Figure 1. Research Model

The following are the hypotheses in this research:

H1 : strategic alignment is positively related to the effectiveness of knowledge transfer.

H2a : Extraversion is positively related to strategic alignment.

H2b : Conscientiousness is positively related to strategic alignment.

H2c : Neuroticism is negatively related to strategic alignment.

H2d : Agreeableness is positively related to strategic alignment.

H2e : Openness to experience is positively related to strategic alignment.

H3a : Trust is positively related to strategic alignment.

- H3b : The strength of relationship ties is positively related to strategic alignment.
- H3c : Understanding is positively related to strategic alignment.
- H4a : Strategic flexibility is positively related to strategic alignment.
- H4b : Balancing commitments is positively related to strategic alignment
- H4c : Cultural fit is positively related to strategic alignment
- H4d : Operational compatibility is positively related to strategic alignment

RESULT AND DISCUSSION

Outer Model (Measurement Model) evaluation: Validity and Reliability Testing

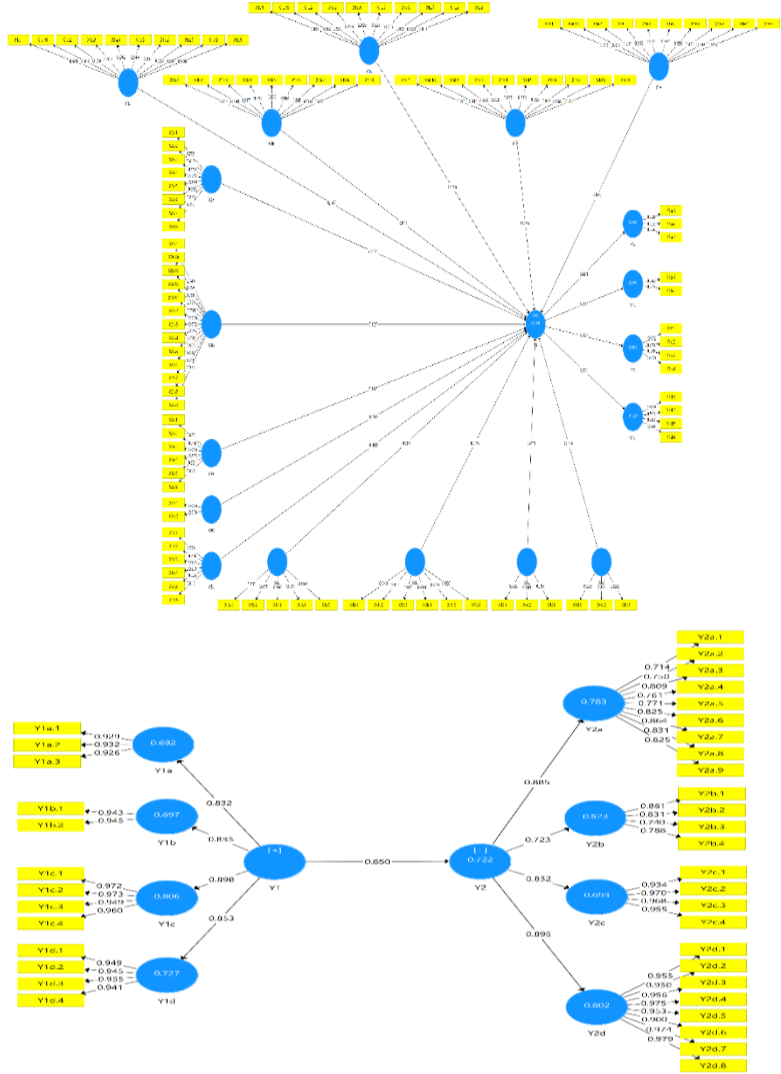


Figure 2 Validity Testing based on Factor Loadings of the First and Second Models

Based on testing the validity of factor loadings, it is known that all loading values are > 0.7, which means they have met the validity requirements based on loading values.

Validity Testing based on Average Variance Extracted (AVE)

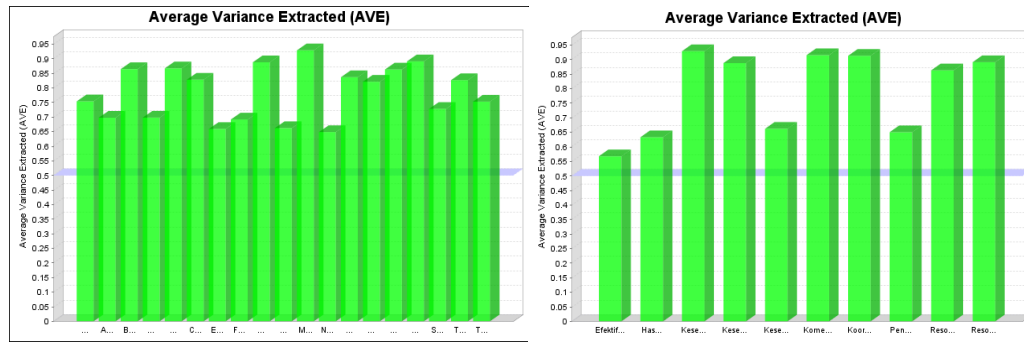


Figure 3. Validity testing based on the first and second AVE models

The recommended AVE value is above 0.5 (Mahfud and Ratmono, 2013:67). It is known that all AVE values are > 0.5 , which means they meet the validity requirements based on AVE.

Discriminant Validity Testing

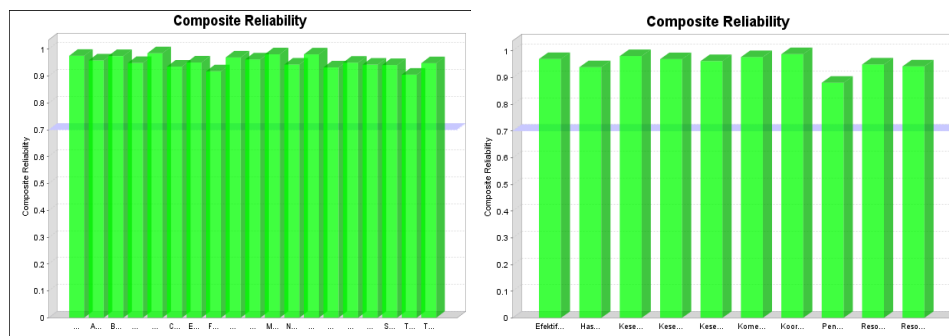


Figure 4 Reliability Testing based on the First and Second Composite Reliability (CR) Models

The recommended CR value is above 0.7 (Mahfud and Ratmono, 2013:67). It is known that all CR values in each research model are > 0.7 , which means they meet the reliability requirements based on CR.

Reliability Testing based on Cronbach's Alpha (CA)

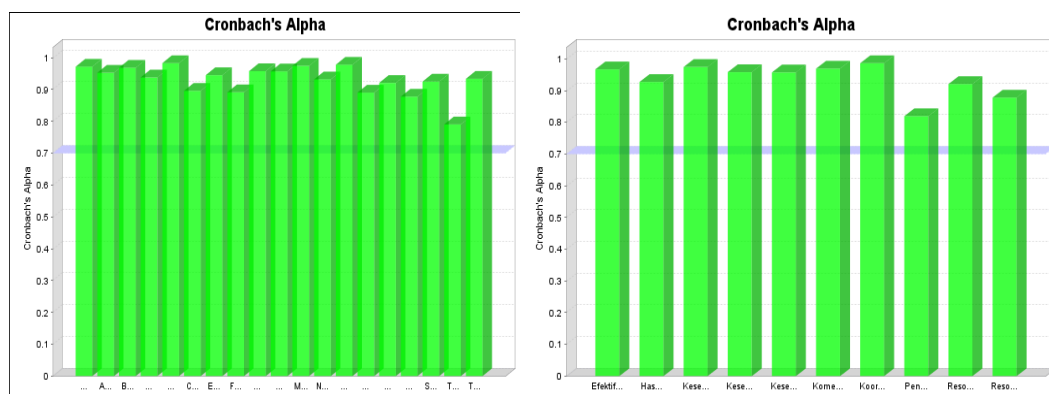


Figure 5. Reliability Testing based on Cronbach's Alpha (CA) First and Second Models

The recommended CA value is above 0.7 (Mahfud and Ratmono, 2013). It is known that all CA values for the first and second models are all > 0.7 , which means they meet the reliability requirements based on Cronbach's alpha.

Inner Model Analysis

Table 1. Fit Test, Determination and Predictive Relevance

Test Models	Model I	Model 2
Model Fit Test	Saturated Model	
SRMR	0.064	0.100
Determination Analysis (R ²)	R Square	R Square Adjusted
Strategic Alignment	0.789	0.764
Effectiveness of Knowledge Transfer	0.722	0.720
Predictive Relevance	Predictive Relevance	
Q ²	0.764	0.720

It is known that based on the results of the SRMR goodness of fit test, the SRMR value was 0.064 for the first model and 0.100 for the second model, each of which was ≤ 0.1 . Based on the results of this analysis, it was concluded that all models in this study were declared Fit.

Based on the determination test for each research model, it shows that the Adjusted R-Square value for the first model was 0.764 and the Adjusted R-Square value for the second model was 0.720. From the previously determined decision standards, the Adjusted R-Square value for each research model is classified as a strong determination value (> 0.67). It can be concluded that all exogenous variables (Absortive Capacity, Agreeableness, Balancing Commitment, Casual Ambiguity, Conscientiousness, Cultural Compability, Extraversion, Flexibility Strategy, Goal Correspondence, Neuroticism, Motivation Correspondence, Openness to Experience, Operational Compability, Resource Complementary, Resource Supplementary, Sharend Understanding, Tie Strength and Trust) in the first model of this research was able to explain the endogenous variable (strategic alignment) of 0.764 or 76.4%. Meanwhile, for the exogenous variable (strategic alignment) in the second model, it is able to explain the endogenous variable (effectiveness of knowledge transfer) by 0.720 or 72%.

The results of the Q-Square calculation in this study for the first model were $0.764 > 0$ or 76.4% and for the second model it was $0.720 > 0$ or 72%. Thus it can be concluded that the first model and second model in this study have relevant predictive value where the model used can explain the information in the research by 76.4% for the first model and 72% for the second model. In this case it can be stated that all exogenous variables (Absortive Capacity, Agreeableness, Balancing Commitment, Casual Ambiguity, Conscientiousness, Cultural Compability, Extraversion, Flexibility Strategy, Goal Correspondence, Neuroticism, Motivation Correspondence, Openness to Experience, Operational Compability, Complementary Resources, Resource Supplementary, Sharend Understanding, Tie Strength and Trust) have a predictive relevance value for the endogenous variable (strategic alignment) of 76.4% for the first model. Meanwhile, the second model shows that the exogenous variable (strategic alignment) has a predicted relevance value to the endogenous variable (effectiveness of knowledge transfer) of 72%.

Path Coefficient Test and Significance Value

Table 2. Path Coefficient Test & Significance Value

	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics (O/STDEV)	P Values
Absortive Capacity -> Strategic Alignment	0.120	0.118	0.055	2.191	0.029
Agreeableness -> Strategic Alignment	0.020	0.015	0.045	0.434	0.665
Balancing Commitment -> Strategic Alignment	0.046	0.048	0.045	1.024	0.306
Casual Ambiguity -> Strategic Alignment	-0.133	-0.129	0.063	2.107	0.036
Conscientiousnes -> Strategic Alignment	0.147	0.146	0.066	2.205	0.028
Cultural Compability -> Strategic Alignment	0.211	0.216	0.079	2.664	0.008
Extraversion -> Strategic Alignment	0.055	0.056	0.064	0.863	0.389
Flexibilty Strategy -> Strategic Alignment	0.007	0.010	0.039	0.183	0.855
Neurotisme -> Strategic Alignment	0.016	0.012	0.046	0.346	0.730
Openness to Experience -> Strategic Alignment	0.216	0.216	0.090	2.409	0.016
Operational Compability -> Strategic Alignment	0.126	0.124	0.061	2.096	0.039
Shared Understanding -> Strategic Alignment	0.108	0.107	0.050	2.014	0.046
Tie Strength -> Strategic Alignment	0.026	0.021	0.048	0.545	0.586
Trust -> Strategic Alignment	0.102	0.109	0.050	2.038	0.042
Kesesuaian_Strategis -> Effectiveness of Knowledge Transfer	0.850	0.847	0.033	25.855	0.000

Based on this table, it is known that if the p-value < 0.05 or the t-statistics value > 1.947 then it is stated that the exogenous variable has an effect on the endogenous variable. Meanwhile, on the other hand, if the p-value is > 0.05 or the t-statistics value is < 1.947 then it is stated that the exogenous variable has no effect on the endogenous variable. From these decision making standards, each relationship between exogenous variables and endogenous variables for each model in each research can be described as follows:

The path coefficient test table and significance value above shows that the original sample value for the relationship between Strategic Alignment and the effectiveness of

knowledge transfer is a positive value of 0.850. Meanwhile, the t-statistics value is $25,855 > 1,947$ with a p-value of $0.000 < 0.05$. From these results it can be concluded that strategic suitability has a positive effect on the effectiveness of knowledge transfer. So the hypothesis proposed in this research, namely "Strategic Alignment has a positive effect on the Effectiveness of Knowledge Transfer" is accepted (first hypothesis).

Furthermore, the path coefficient test table and significance values above show that the original sample value for the relationship between extraversion and Strategic Alignment is a positive value of 0.055. Meanwhile the t-statistics value is $0.863 < 1.947$ with a p-value of $0.389 > 0.05$. From these results it can be concluded that extraversion has no effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Extraversion has a positive effect on Strategic Alignment" is rejected (second hypothesis).

The next hypothesis in the path coefficient test table and the significance value mentioned above shows that the original sample value for the relationship between conscientiousness and Strategic Alignment is a positive value of 0.147. Meanwhile the t-statistics value is $2.205 > 1.947$ with a p-value of $0.028 < 0.05$. From these results it can be concluded that conscientiousness has a positive effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Conscientiousness has a positive effect on Strategic Alignment" is accepted (third hypothesis).

Then the path coefficient test table and significance values mentioned above show that the original sample value for the relationship between neuroticism and Strategic Alignment is a positive value of 0.016. Meanwhile the t-statistics value is $0.346 < 1.947$ with a p-value of $0.730 > 0.05$. From these results it can be concluded that neuroticism has no effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Neuroticism has a negative effect on Strategic Alignment" is rejected (fourth hypothesis).

Then, in the path coefficient test table and the significance value above, it shows that the original sample value for the relationship between agreeableness and Strategic Alignment is a positive value of 0.020. Meanwhile the t-statistics value is $0.434 < 1.947$ with a p-value of $0.665 > 0.05$. From these results it can be concluded that Agreeableness has no effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Agreeableness has a positive effect on Strategic Alignment" is rejected (fifth hypothesis).

Then for the next hypothesis in the path coefficient test table and the significance value above, it shows that the original sample value for the relationship between openness to experience and Strategic Alignment is a positive value of 0.216. Meanwhile the t-statistics value is $2,409 > 1,947$ with a p-value $0.016 < 0.05$. From these results it can be concluded that openness to experience has a positive effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Openness to Experience has a positive effect on Strategic Alignment" is accepted (sixth hypothesis).

Then the path coefficient test table and the significance values mentioned above show that the original sample value for the relationship between casual ambiguity and Strategic Alignment is a negative value of 0.133. Meanwhile the t-statistics value is $2.107 > 1.947$ with a p-value of $0.036 < 0.05$. From these results it can be concluded that casual ambiguity has a negative effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Casual Ambiguity has a negative effect on Strategic Alignment" is accepted (seventh hypothesis).

The path coefficient test table and significance values above show that the original sample value for the relationship between absorptive capacity and Strategic Alignment is a positive value of 0.120. Meanwhile, the t-statistics value is $2,191 > 1,947$ with a p-value of $0.029 < 0.05$. From these results it can be concluded that absorptive capacity has a

positive effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Absortive Capicity has a positive effect on Strategic Alignment" is accepted (eighth hypothesis).

The next hypothesis in the path coefficient test table and the significance value mentioned above shows that the original sample value for the relationship between trust and Strategic Alignment is a positive value of 0.102. Meanwhile the t-statistics value is 2.038 > 1.947 with a p-value of 0.042 < 0.05. From these results it can be concluded that trust has a positive effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Trust has a positive effect on Strategic Alignment" is accepted (ninth hypothesis).

Then for the next hypothesis in the path coefficient test table and the significance value mentioned above shows that the original sample value for the relationship between tie strength and Strategic Alignment is a positive value of 0.026. Meanwhile, the t-statistics value is 0.545 < 1.947 with a p-value of 0.586 > 0.05. From these results it can be concluded that tie strength has no effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Tie Strength has a positive effect on Strategic Alignment" is rejected (tenth hypothesis).

The path coefficient test table and significance value above shows that the original sample value for the relationship between shared understanding and Strategic Alignment is a positive value of 0.108. Meanwhile the t-statistics value is 2.014 > 1.947 with a p-value of 0.046 < 0.05. From these results it can be concluded that shared understanding has a positive effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Shared Understanding has a positive effect on Strategic Alignment" is accepted (eleventh hypothesis).

Meanwhile, the path coefficient test table and significance values above show that the original sample value for the relationship between flexibility strategy and Strategic Alignment is a positive value of 0.007. Meanwhile the t-statistics value is 0.183 < 1.947 with a p-value of 0.855 > 0.05. From these results it can be concluded that flexibility strategy has no effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Flexibility Strategy has a positive effect on Strategic Alignment" is rejected (twelfth hypothesis).

Furthermore, the path coefficient test table and significance values above show that the original sample value for the relationship between balancing commitment and Strategic Alignment is a positive value of 0.046. Meanwhile the t-statistics value is 1.024 < 1.947 with a p-value of 0.306 > 0.05. From these results it can be concluded that Balancing Commitment has no effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Balancing Commitment has a positive effect on Strategic Alignment" is rejected (thirteenth hypothesis).

The next hypothesis in the path coefficient test table and the significance value mentioned above shows that the original sample value for the relationship between cultural compatibility and Strategic Alignment is a positive value of 0.211. Meanwhile, the t-statistics value is 2,664 > 1,947 with a p-value of 0.008 < 0.05. From these results it can be concluded that cultural compatibility has a positive effect on Strategic Alignment. So the hypothesis proposed in this research, namely "Cultural Compability has a positive effect on Strategic Alignment" is accepted (fourteenth hypothesis).

The next hypothesis in the path coefficient test table and the significance value mentioned above shows that the original sample value for the relationship between operational compatibility and Strategic Alignment is a positive value of 0.126. Meanwhile, the t-statistics value is 2,096 > 1,947 with a p-value of 0.039 < 0.05. From these results it can be concluded that operational compatibility has a positive effect on Strategic Alignment.

So the hypothesis proposed in this research, namely "Operational Compability has a positive effect on Strategic Alignment" is accepted (fifteenth hypothesis).

DISCUSSION

This research proposes hypothesis 1 regarding the positive influence of strategic alignment on the effectiveness of knowledge transfer. The research results confirm this relationship indicating the importance of strategic alignment towards achieving effective knowledge transfer in the context of UI collaboration. The results of this research are in line with several studies by Hao, Du, Huang, Shao, & Yan, (2019); Xue, Temeljotov-Salaj, & Lindkvist, (2022). Through the formation of a collective understanding of strategic interests, resolving gaps leads to the creation of balance, thereby facilitating efficient knowledge exchange between the parties involved.

The research results prove that there is a rejection of the relationship between these two variables towards strategic alignment. The results of this study contradict several previous studies which stated a positive relationship between these variables Allen, Mison, Robson, & Laborde, (2021) finding that higher levels of extraversion contributed to team success. Although contrary to the majority of research related to Extraversion, the negative results of this study are in line with research by (Ogunfowora et al., 2021). Extraverts, due to their tendency towards social interaction, tend to show high levels of participation and active involvement in group meetings, thereby actively contributing to group discussions and debates. Therefore, it can be said that there is a positive correlation between extraversion and effective teamwork abilities, although within certain limits. Individuals with high levels of extraversion have the potential to hinder interpersonal relationships because of their tendency to display conspicuous behavior, as well as their tendency to be superficial and overreactive (J. Kim et al., 2021). Individuals who have very high levels of extraversion may exhibit deficiencies in their listening abilities and may be perceived as talking too much. In general, individuals with high levels of extraversion tend to gain satisfaction from occupying prominent and easily observable team leadership positions. However, they have a tendency to dominate conversations and, although they may take on formal or informal leadership roles in work teams, they are unlikely to be seen as making an effective contribution to collaborative efforts. As a result, these individuals may be perceived by others as having dominant leadership qualities, in contrast to the characteristics of members who are said to be effective in teams. According to Garg, Anand, & Vakeel, (2023), team members who have extreme extraversion may show a tendency to engage in excessive socialization that is unrelated to the task at hand. Additionally, these people can dominate discussions with their own perspectives, exaggerate their personal skills and contributions, and consequently distract the team from its collective goals.

Agreeableness often leads individuals to demonstrate a tendency to please others, which can have negative consequences for collaborative task performance (Wicaksana & Kasmir, 2023). This tendency can appear in the form of a tendency to ignore mistakes made by coworkers, a reluctance to reveal personal performance deficiencies to avoid conflict, and a tendency to suppress dissenting opinions in order to maintain a good image. Research conducted by Morrison-Smith & Ruiz, (2020) show that these behaviors can be detrimental to the overall effectiveness of collaborative tasks. With regard to collective task engagement, it has been observed that team members who demonstrate high levels of agreeableness may assume responsibility for the tasks of their underperforming colleagues or may be reluctant to refuse additional tasks. As a result, these individuals may experience individual task overload, leading to failure in performance and a lack of contribution to the achievement of collective goals. Individuals who show high levels of agreeableness can be perceived by others as lacking experience or knowledge, submissive, avoiding conflict, and lacking competitiveness. Conversely,

individuals who score low in agreeableness in a group may be seen as unfriendly and untrustworthy.

Regarding Neuroticism, this study hypothesizes the negative influence of neuroticism on strategic alignment, but the research results prove the rejection of a negative relationship between this variable and strategic alignment. The results of this study are in contrast to research by Bower, Wetherell, Petkus, & Lenze, (2020) which stated that individuals with neuroticism tend not to be good team members. due to its emotionally unstable nature which can disrupt interaction and communication processes, it is less socially cohesive and more conflictual and has the potential to disrupt team dynamics which is very important to foster an atmosphere conducive to interpersonal risk taking in teams.

However, the results of this study are in line with Gogola, Dębski, Goryczka, Gorczyca, & Piegza, (2021) explained that individuals with neurotic tendencies can show a higher tendency to worry, which makes them try more optimally. Furthermore, Kerr, Birdnow, Wright, & Fiene, (2021) state that individuals who are anxious and sensitive - as an aspect of neuroticism - are often characterized by a tendency to worry and are believed to show a high level of prevention focus and will perform better when trying to avoid losing rewards than when trying to get rewards. University-industry collaboration is one that will benefit both parties in both the short and long term, so because of their strong desire to avoid failure and loss, motivational tactics for often anxious and highly vulnerable employees may be more successful. This can explain the influence of aspects of neuroticism that develop over a certain period of time, especially those involving interpersonal relationships. It is possible that signs of correlation between some aspects of neuroticism and variables such as likeability may reverse or disappear over time as individuals get to know each other and interpersonal relationships develop and ultimately give rise to feelings of comfort in collaborating and arguing so enables strategic alignment to be achieved.

The hypothesis that Openness to experience has a positive effect on strategic alignment is declared accepted and is in line with previous research regarding the positive influence of personality regarding the importance of personality characteristics in building team members who can influence the process of joint cognition regarding strategic interests. The hypothesis that Conscientiousness has a positive influence on strategic alignment is also accepted and is in line with several previous studies regarding the positive influence of conscientiousness on teamwork success. Dishon-Berkovits, Bakker, & Peters, (2023) stated that conscientiousness consistently shows itself to be the most reliable indicator of job performance in various occupational fields. This trait is also a strong predictor of individual-based performance due to the strong motivation to achieve demonstrated by conscientious individuals. Given that task accomplishment is a fundamental aspect of collaborative work, it can be concluded that conscientiousness plays an important role in determining the fit between individual and task-oriented aspects of team work.

Causal ambiguity is the inability to provide precise reasons for success or failure in replicating capabilities in a new environment that cannot be determined even *ex post* (Barney et al., 2021). At the team level, the stock of knowledge consists of complex social interactions, implicit and non-codifiable skills. The collective mind becomes important through a learning process where team members improve their ability to synchronize individual actions under each member's responsibility because teams usually require different skills from their members. So if causal ambiguity occurs then the learning process of developing and utilizing knowledge as well as the communication and interaction process in team collaboration can be hampered which will indirectly hinder the strategic alignment process by creating a number of losses including misunderstandings, increasing project complexity (Rosati & Lynn, 2022).

The research results prove that there is a positive relationship between the ability to absorb and have a positive effect on strategic alignment. In interorganizational

relationships, the success of the relationship often depends on their capacity to learn from their partners. Thus, absorptive capacity is a prerequisite for being cumulative (building on pre-existing knowledge), complementary (requiring different types of knowledge) and composite (requiring a combination of different “bits” of knowledge held by many different agents) bases. Knowledge as a source of their learning process. Collective capabilities within teams become crucial for the implementation of individual knowledge assimilation, where projects are executed as individual knowledge is interpreted and integrated in reaching consensus decisions and solving relevant problems at the team level (Woo et al., 2022).

Trust is positively related to strategic alignment. According to Byoungsoo Kim & Kim, (2020), trust plays an important role in fostering a sense of mutual understanding, which then builds legitimacy and commitment. Furthermore, Barney et al., (2021), state that trust allows individuals to transcend personal, institutional and jurisdictional boundaries, so that they can gain understanding comprehensive understanding of other people's interests, needs, values and constraints which will ultimately make it easier to build harmony. Trust can play an important role in facilitating the resolution of disputes or conflicts between individuals involved in collaboration. Because trust can contribute to fostering a sense of mutual understanding and encourage acceptance of differences, so that it can increase collaborative efforts between the parties involved. Additionally, building research partnerships based on trust can provide opportunities for adaptation in operational procedures and information sharing. This becomes the basis for the exploration of new knowledge and the achievement of effective research results, which ultimately leads to more satisfying joint research efforts (Y. Kim et al., 2021).

The research results show that relationship strength is positively related to strategic alignment. The results of this study are in line with several previous studies regarding the positive impact of relationship strength on inter-organizational collaboration (Gogola, Dębski, Goryczka, Goryczyca, & Piegza, 2021). The concept of tie strength in business research refers to the degree of closeness between collaboration partners based on their past interactions (Lin et al., 2019). This concept has been commonly used in the context of interorganizational relationships, indicating that representatives of collaborating companies develop a sense of collective closeness as a result of their previous interactions. To clarify, the notion of informal social relationships between people, also known as interpersonal ties, has been expanded to include the intensity of relationships between entire organizations, referred to as interorganizational tie strength. The relevance of the strength of inter-organizational ties has been demonstrated in a variety of contexts.

Hypothesis 3C of this study proposes that understanding is positively related to strategic alignment. The research results prove that there is a rejection of the positive relationship between the two. Predictability, the ability to implement agreed decisions, and increased motivation are the results of shared understanding and desires related to performance and are key factors for achieving and maintaining alignment. Through his case study on interorganizational projects, Barney, Ketchen Jr, & Wright, (2021) found that interorganizational projects are challenging projects due to various basic differences between teams which then make building a common understanding difficult. Even though they have the same goals that make them move in the same direction, this does not guarantee the creation of a common understanding between them to facilitate effective collaboration and efficient implementation. However, it was further said that despite the existing challenges, cooperation between organizations brings more benefits than obstacles.

The research results prove that there is a rejection of the positive relationship between strategic flexibility and strategic alignment. These results are in contrast to several studies such as Gogola, Dębski, Goryczka, Goryczyca, & Piegza, (2021) which state the importance of universities and their industrial partners to adapt more quickly and align their efforts towards increasing changes in strategy and goals. Relations with industry

often become a dilemma for universities, especially academics. They have very different missions, values, and ideologies and often exhibit mutual distrust (Schein, 2020). Agreeing to whatever a company wishes could be a mistake because it is considered to be abusing university rules with rigid bureaucracy, while any approach that fails to reach an agreement with industry on the other hand can also be detrimental to the university in this case failing to reach an agreement on a solution for partner companies.

Balancing Commitment has a positive effect on Strategic Alignment. The research results prove the rejection of this hypothesis. This result is in contrast to several such studies (Barney et al., 2021). The concept of balancing commitments relates to the act of aligning the goals and objectives of various stakeholders within an organization, which includes reconciling the interests of employees, consumers, shareholders and other related parties. Strategic alignment relates to the alignment of an organization's strategic direction with its general goals, specific goals, and available resources. Strategic alignment is widely recognized as an important factor in achieving organizational success, as it facilitates harmonization of efforts towards shared goals and objectives among all members of the organization. However, the complex nature of the correlation between managing liabilities and achieving strategic alignment should not be underestimated.

Cultural Congruence and Operational Compatibility have a positive effect on Strategic Alignment. These positive results are in line with research by Gogola, Dębski, Goryczka, Goryczyca, & Piegza, (2021) which states that suitability or compatibility is an important aspect of fit (*ex ante*) and will influence the extent to which partners are able to realize the synergistic potential of collaboration. Furthermore, Dafoe et al., (2021) found that compatibility can encourage commitment and communication processes through shared goals - which in this research is defined as strategic alignment where compatibility in this research is viewed from the perspective of corporate culture and appropriate operations strategy (Barney et al., 2021). However, it is further emphasized that compatibility does not mean that it is generic or applied equally but rather refers to mutually agreed interests.

CONCLUSION

This research finds that strategic alignment between universities and industry is critical for effective knowledge transfer. However, this research also revealed that six of the fifteen hypotheses proposed were not supported by the data. These rejected hypotheses included the positive influence of extraversion, agreeableness, neuroticism, insight, strategic flexibility, and balancing commitment on strategic alignment. For example, individuals high in extraversion tend to dominate discussions and deviate from collective goals, while those low in extraversion struggle to contribute effectively. Likewise, individuals with dominant agreeableness traits often ignore mistakes and avoid conflict, thereby negatively impacting collaborative tasks. The hypothesis that neuroticism negatively impacts strategic alignment was also rejected, as individuals with neurotic tendencies demonstrated higher motivation and effort. These findings suggest that building shared understanding and maintaining strategic flexibility can be a challenge in short-term UI collaboration. Overall, this research emphasizes the benefits of UI collaboration and the importance of motivation and a positive attitude towards collaboration.

Respondents for this research came from five state campuses in Indonesia. Almost all of these campuses have representative offices that handle UIC collaboration, but most of the UIC collaboration project teams are still at the individual level. Apart from having their own rules and bureaucracy, state campuses are also still bound by central bureaucracy. Deviating from central rules or bureaucracy has consequences that can sometimes be fatal. This may be the justification for why most UIC projects are still at the individual level even though UIC projects at the organizational level have also increased. Therefore, the government's role in the UIC project plays an important role. Apart from providing

clear rules regarding collaborative projects, UI also encourages private organizations to be more active in collaborating with industry.

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