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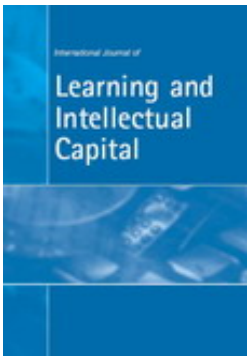


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# The impact of Penta-Helix Collaborative Business Incubation Process on the creative business strategic orientation and innovation capability

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**Abstract:** Many studies explored the firm's innovation capabilities in this post-pandemic era. However, it is rare to find the relationship dynamics between the business incubation process, the orientation of business strategy, and the creative economy-based SMEs' innovation capability. This research aims to reveal the impact of Penta-Helix's collaborative business incubation process on the strategic orientation focus of creative business and innovation capabilities. Quantitative data was collected from 420 creative entrepreneurs in East Java, Indonesia. Applying SEM-PLS finally obtained support for the research hypothesis. The study results revealed that the optimal collaborative business incubation process impacts the focus of business strategy orientation. This research contributed theoretical implications to developing the strategic management theory resource-based view of the firm, in which external parties must drive company resources that are the primary key in achieving innovation. Further research should explore whether collaborative business incubation can moderate the strategic business orientation on innovation capabilities.

**Keywords:** Penta-Helix Collaborative Business Incubation Process; PHCBIP; strategic business orientation; innovation capabilities; creative business.

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## 1 Introduction

Innovation capabilities are eminent for creative business actors in encountering virulent competition in a vibrantly changing environment in this post-digital pandemic era (Anjaningrum et al., 2021a). Digital transformation due to the COVID-19 pandemic has caused extreme economic changes that companies must adapt quickly to survive (Schwer and Hitz, 2018). Around 91% of companies worldwide have deployed information technology (Zolkover et al., 2022). However, Hoa and Tuyen (2021) contend that in the context of SMEs, the impact of digital transformation still depends on the SMEs' readiness. SMEs can operate using their innovative potential to expand their business even though the local market is suffering from a severe recession because, with innovation, products can penetrate the global market (Hanelt et al., 2021). Therefore, the problems and challenges encountered in digitisation include the triggers for innovative thinking (Von Leipzig et al., 2017). Digital disruption innovation is an innovation that has succeeded in changing the industrial landscape in aspects such as structure, technology, and marketing model (Kurniati and Suryanto, 2022). However, for Shvindina et al. (2022), building and supporting competitiveness at a high level is complex, and increasing innovation potential is equally challenging.

Meanwhile, Saulina (2016) states that innovation capabilities in the SMEs context are relatively limited due to the dearth of literature on this topic. SMEs, especially those based on the creative economy, closely related to culture and creative industries, are critical factors driving a region's economic growth and development (Boccella and Salerno, 2016). Thus, strengthening the innovation capabilities of these creative businesses, especially those in East Java, Indonesia, is crucial because East Java

generated a significant contribution to the national economy and accounted for 14.92% of the national GDP in 2019.

Companies' long-term strategies in a fast-changing business environment improve business efficiency, and companies need to develop their risk-taking ability and search for unfamiliar areas. Thus, companies rely on incubators to drive innovation and growth with an entrepreneurial mindset (Gonthier and Chirita, 2019). Incubator support enables innovators to corroborate a systematic variety, notably by maintaining the links between the phases of the innovation process and building supportive innovation cases (Mvulirwenande and Wehn, 2020) SME managers must be passionate about adapting their innovations to the changing environment and set plans (Hermawati, 2020).

Several research publications have convinced readers of the specific impact of the results of the business incubation process on company performance (e.g., Şehitoğlu and Özdemir, 2013; Iyortsuun, 2017; Ayatse et al., 2017; Rakthai et al., 2019; Vincent and Zakkariya, 2021). However, literacy, which proved the strong impact of the business incubation process on tenant innovation, is still rare. Innovation is our focus in this research because innovation is a key resource in facing competition in the current digital era (Anjaningrum et al., 2021a, 2021b). Innovation is not easy for SMEs (Shvindina et al., 2022), so a deeper review of whether incubators can be relied upon to achieve it (Gonthier and Chirita, 2019) is very interesting to study. Mvulirwenande and Wehn (2020) have proven that incubator support enables innovators to realise innovation successfully.

We began with the research results of Anjaningrum et al. (2021a), which showed strong evidence of the influence of business incubation carried out by five creative economy stakeholders in Indonesia (Penta-Helix: Academics, Business, Government, Community, and Media) on competitive advantage in the form of innovation. However, these findings still need to show the direct effect of the business incubation process on innovation. Research stated that business incubation would strengthen dynamic capabilities, which impact innovation excellence. Furthermore, Anjaningrum et al. (2023) confirmed the direct relationship between business incubation and innovation, revealing an empirical gap that the business incubation model in Indonesia – a developing country – still does not support product innovation due to limited budgets for mentoring and facilities. Business incubation could support other innovations if it does not support product innovation. So, in this study, we define innovation more generally as Raghuvanshi and Garg (2022) have identified innovation from many previous studies.

Apart from business incubation, Anjaningrum et al. (2021a) divulged the role of the orientation strategy chosen by the industry to achieve a competitive advantage in the form of innovation. Other study, Hughes et al. (2021) found that innovation supports the actions of its business units, where an entrepreneurial orientation (EO) plays a far-reaching role in its success. However, this finding contradicts the research conducted by Najafi-Tavani et al. (2018), which suggested that as far as absorption capacity in market orientation (MO) is concerned, 'only collaboration with research organisations and competitors have a positive effect on product innovation capability'. This result is different from Akman and Yilmaz (2019) finding, which revealed the power of customer focus in influencing the company's creative ability. It becomes interesting to study whether the business strategy orientation significantly impacts innovation.

Returning to the research of Anjaningrum et al. (2021)a, who reveals the importance of incubation and an organised business strategy for innovation. Crefioza et al.'s. (2022) research results confirm the role of business incubators in predicting tenant business

strategies; however, it contradicts Onyango et al.'s (2021) result demonstrating the insignificance of mentoring programs in business incubation on business orientation. These studies demonstrated previous research findings that are varied, although they focus on a similar topic, namely creative businesses.

Therefore, we investigated the dynamics of the relationship between business strategy orientation, collaborative business incubation processes, and creative economy-based SME innovation. Our study was conducted on creative businesses in East Java, Indonesia, a developing country. The contribution of this study has been to confirm the development of SMEs innovation based on the creative economy in Indonesia. This study contributes to existing knowledge of strategic management by providing a robust analysis of business orientation strategy and creative business innovation capability (CBIC) driven by optimal outcomes of the Penta-Helix Collaborative Business Incubation Process (PHCBIP).

## 2 Literature review

Our study referred to the theoretical lens of resource-based view (RBV) (Wernerfelt, 1984; Barney, 1991), which is the grand strategic management theory. This theory proposes achieving a company's competitive advantage by managing scarce, valuable, incomparable, and irreplaceable resources. These resources include company assets, personnel knowledge, abilities, skills, and even relationships between personnel (Wernerfelt, 1984; Barney, 1991; Peteraf, 1993). The RBV that evolved into a framework of values, scarcity, imitability, and organisation (VRIO) (Terziovski, 2010) focuses more on the relationship between strategic business orientation and internal company resources. Previous research has examined the role of strategic orientation in increasing company resources to improve performance, including innovation performance, (e.g., Grimmer et al., 2017; Morgan and Anokhin, 2020; Andersén, 2021). Anik and Sulistyo (2021) tested the resource-based view approach and innovation in SMEs in Indonesia, where the results showed that innovation is created depending on the resources owned by the company. This finding was reinforced by Nejjari and Aamoum (2022), proving that resources impact a company's innovation ability. Incrementally, the impact is on multiple levels.

In the context of SMEs with limited resources, it is important to manage the distribution of resources effectively and efficiently (Grimmer et al., 2017; Morgan and Anokhin, 2020). Improving the quality of human resources to introduce modern digital technology into business processes is vital (Rodchenko et al., 2021) to produce innovations that become the most potent scheme to cope with the fast-changing environment that is increasingly difficult to control in this era. Entrepreneurs focus on transforming creative ideas into reality for innovation (Kabukcu, 2015). Corporate entities need to inculcate entrepreneurial-oriented behaviours, including the actions of their business units, to create radical innovations (Hughes et al., 2021). Leadership behaviours can be impacted by the workplace environment, which in turn means that it could affect an expatriate's readiness for innovation (Hoffman and Sergio, 2020).

Meanwhile, Hassan et al. (2017) advocate the linkage between the development of innovative systems and customers. The primary commercialisation and construction models that influence the process of innovation results include MO (Cubero et al., 2021).

Customer focus is essential for business continuity and sustainability (Kassim et al., 2016). While Najafi-Tavani et al. (2018) maintained that absorption capacity in MO is the most significant factor impacting innovation, Akman and Yilmaz (2019) found that customer focus is the most potent factor influencing the company's innovative ability.

Thus, entrepreneurial and MO are drivers of innovation ability, especially innovations that SMEs can carry out. Both entrepreneurial and MO reflect the business's strategic orientation (Widjaja and Sugiarto, 2022). However, strategic business orientation is not proven to affect administrative innovation significantly; hence, strategic orientation does not benefit the innovation context (AlQershi, 2022).

H1 'Business strategic orientation focus (BSOF) is crucial for the innovation capability of creative businesses (ICCB) in East Java, Indonesia'.

Innovation is one of the strategic outcomes of successful business incubation practices (Al-Mubaraki and Busler, 2013); thus, creating an innovation-based incubation ecosystem is paramount (Allahar and Brathwaite, 2016). The intensive business incubation process is comparable to the investment project accomplishment characterised by the flexibility of the company's decision-making (Posza, 2019). Mvulirwenande and Wehn (2020) insist, 'The incubator support enables innovators to innovate systematically'. Meanwhile, the involvement of stakeholders, including local governments, universities, and other business support organisations, varies over time through collaborative partnerships. This affects business incubation, ultimately impacting entrepreneurial outcomes (entrepreneurial activities and innovation) (Liu, 2020). Previous researchers have formulated a collaborative business incubation model with creative economy stakeholders, namely the Penta-Helix collaborative incubation (Anjaningrum et al., 2021a, 2021b). The five-helix collaboration has the ability to interact with innovation in countries with diverse levels of business development (Megits et al., 2022).

H2 'PHCBIP followed by creative businesses in East Java, Indonesia, is imperative in increasing the innovation capability'.

One of the incubator services and programs is the determination of a business strategy that is a tenant-oriented goal (Crefioza et al., 2022). Business incubators play a considerable role in supporting entrepreneurial activities aligning with an EO to achieve high entrepreneurial performance (Soetanto and van Geenhuizen, 2019). The business incubators are considered an essential mechanism for sustainable development because they involve stakeholders and provide relevant activities for social interactions, leading the MO and entrepreneurship (strategic business orientation) to affect the performance of SMEs significantly. However, the empirical occurs when there is no statistically significant role of mentoring in business incubation on EO (Onyango et al., 2021).

H3 'The optimal PHCBIP may affect the BSOF of creative businesses in East Java, Indonesia'.

There is an interactive relationship between the business incubation process, strategy orientation, and innovation capability; the strategic business orientation focus is a mediating variable.

H4 'There is a mediating effect of strategic business orientation focus on the relationship between the PHCBIP and CBIC in East Java, Indonesia'.

## 3 Methodology

The research was conducted through a survey of creative entrepreneurs in East Java Province using the accidental-purposive sampling technique. According to Hair et al. (2010), the minimum number of samples is 10 × 42 (the number of indicators used to measure research variables). This suggests that our study engaged 420 creative entrepreneurs. Our research involved respondents who had at least three years of business experience. The business survived during start-up and was able to encounter economic shocks during the COVID-19 pandemic. Additionally, the participants possessed at least one year of participation in collaborative business incubation organised by Penta-Helix. The collected data were analysed using PLS with SmartPLS 4.0.8.2 software.

**Table 1** Variable indicators

| | | |
|---|---|---|
| Business strategic orientation focus (BSOF) (Anjaningrum et al., 2021b) | Entrepreneurial orientation (EO) | Achieve every goal with a brave action (EO1) |
| | | Pay attention to the competitive position (EO2) |
| | | Be aggressive (EO3) |
| | | Brave to take high-risk, return opportunities (EO4) |
| | | Initiate innovative actions (EO5) |
| | | Produce research and development (EO6) |
| | | Be the first to introduce a new product in the market (EO7) |
| | Market orientation (MO) | Shared information and knowledge (MO1) |
| | | Customer focus (MO2) |
| | | Information acquisition (M03) |
| | | Organisation learning (MO4) |
| Penta-Helix Collaborative Business Incubation Process (PHCBIP) (Anjaningrum et al., 2021b) | Mentor capability (M) | Related business mentor capability (M1) |
| | | Media mentor capability (M2) |
| | | Government mentor capability (M3) |
| | | Community mentor capability (M4) |
| | | Academic mentor capability (M5) |
| | Curriculum (C) | Digital transformation (C1) |
| | | Product development (C2) |
| | | Professional business management (C3) |
| | | Marketing and branding (C4) |
| | | Business model (C5) |
| | Method (Md) | Business assistance (Md1) |
| | | Facilitation (Md2) |
| | | Training (Md3) |
| | | Mentoring (Md4) |

*Source:* Author's work (2021)

**Table 1** Variable indicators (continued)

| | |
|---|---|
| Creative business innovation capability (CBIC)<br>(the measuring indicators are based on Raghuvanshi and Garg, 2022, but with a change in the characteristic which formative indicators change to become reflective indicators] | Has produced a new innovative product supported by an institution (IC1) |
| | Has generated a new innovative product via collaboration and network (IC2) |
| | Has carried out a product rejuvenation and made improvements (IC3) |
| | Possess a high dexterity and awareness (IC4) |
| | Has adapted to the new technology (IC5) |
| | Has an awareness of innovation and organisational climate (IC6) |
| | Engage customers in the innovation process (IC7) |
| | Master the knowledge (IC8) |
| | Participate in the innovation process (IC9) |
| | Able to take risks from the innovations created (IC10) |
| | Innovate leadership practice (IC11) |
| | Innovate organisational learning (IC12) |
| | Supply involvement in the innovation process (IC13) |
| | Use ideation (Design Thinking) and organisation in the innovation process (IC14) |
| | Has an innovation strategy formulation (IC15) |

*Source:* Author's work (2021)

## 4 Results

A survey was conducted with 420 respondents who were creative entrepreneurs in East Java, Indonesia. The respondents were from various creative economy sub-sectors: 52 respondents (12%) were culinary entrepreneurs, 48 respondents (11%) were craftspersons, and 40 respondents (10%) were fashion designers. Applicator represented 9% of the respondents (36), and game developers accounted for 8% of the respondents (34). Visual communication designers represented 7% of the respondents (30), and film, animation, and video producers accounted for 6% of the samples (27). Performing arts producer comprised 6% of the samples (24), while architects represented 5% of the samples (21). The percentage of photographers was 4% (18), and musicians also represented 4% of the samples (18). The remaining respondents include advertising employees (4% or 15), product designers (3% or 13), fine arts workers (3% or 12), publishing officers (3% or 12), interior designers (3% or 12), and television and radio officers (2% or 10).

As for gender, 52% were male and 48% female, which showed an almost equal number of female and male creative entrepreneurs. Gender empowerment in East Java was quite successful in the creative economy sector. Meanwhile, respecting the age of

creative entrepreneurs, 35% were aged 21–30 years, 28% were aged 31–40 years, 25% were aged 41–50 years old, and only 12% were over 50 years old. Meanwhile, regarding the age of the creative business establishment (business age), 25% were start-ups (less than three years old), 40% were 3–6 years old, 23% were 6–10 years old, and 12% had run a creative business for more than ten years.

### *4.1 Measurement of the SEM-PLS outer model using the SmartPLS-4.0.8.2 software*

The manifest construct is valid when it has a loading factor value above 0.70 (Hair et al., 2014). As shown in Figure 1, we can see that all manifest constructs reflect the entrepreneurial and market as the dimension of BSOF. The method, mentor capability, curriculum as the dimension of PHCBIP, and the CBIC all have a loading factor value > 0.7, indicating that the research instrument is valid.

Meanwhile, convergent validity can be checked through the average variance extracted (AVE) value which must be more than 0.5. The reliability of the research instrument can be tested through Cronbach's alpha which must be more than 0.6, and composite reliability, which must be more than 0.8, as recorded in Table 2.

Table 2 shows that the AVE value of all latent constructs is more significant than 0.5; thus, the research instrument is valid. We know that the value of Cronbach's alpha for each latent construct is more significant than 0.6, and the composite reliability value for each latent construct is more significant than 0.8, showing that the research instrument is reliable.

### *4.2 Measurement of the SEM-PLS inner model using the SmartPLS-4.0.8.2 software*

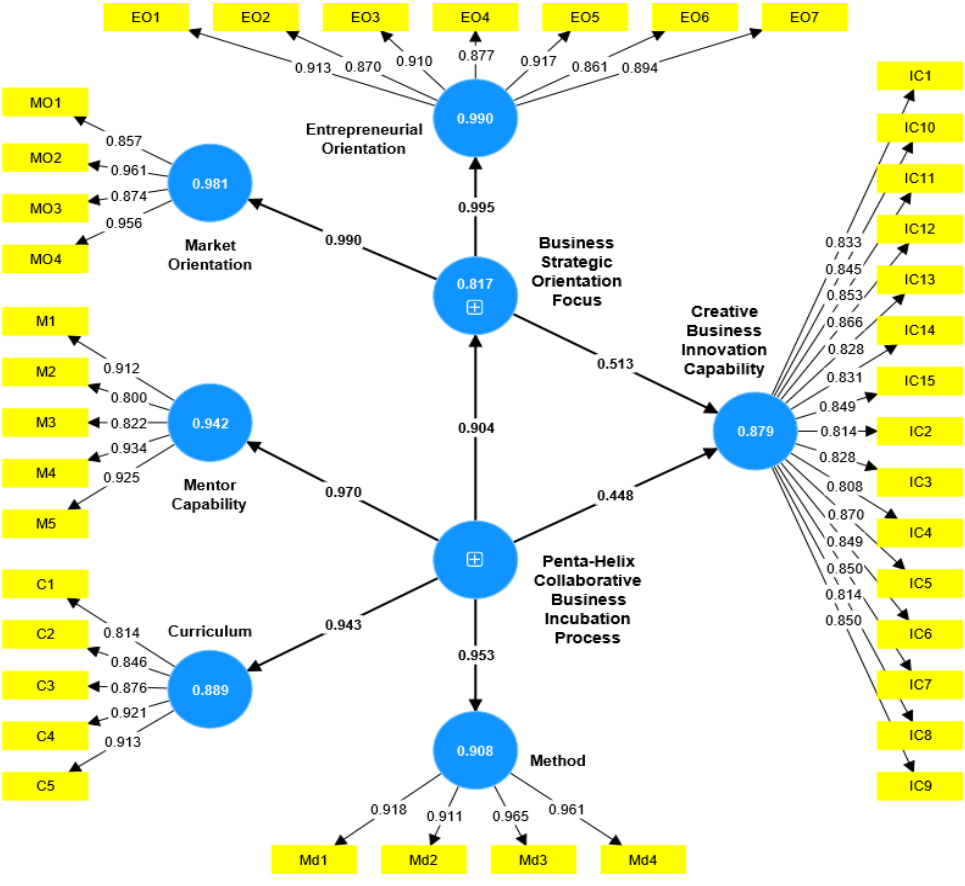
The inner model tests incorporate R-Square (R2) and the goodness of fit (GoF). The value of R-Square is the coefficient of determination on the endogenous latent construct. According to Chin (1998) (in Hair et al., 2017), the value of R-Square is 0.67 substantial. As seen in Figure 1, we can see that the R-Square value in BSOF is 0.817. About 81.7% of BSOF is explained powerfully by PHCBIP. It also is known that the R-Square value in CBIC is 0.879. About 87.9% of CBIC is explained powerfully by BSOF and PHCBIP.

The GoF value is calculated manually using the formula: $\text{GoF} : \sqrt{AVE \times R^2}$.

- $\text{GoF of CBIC} = \sqrt{0.704 \times 0.879} = 0.78.$
- $\text{GoF of BSOF} = \sqrt{0.796 \times 0.817} = 0.80.$

According to Tenenhaus (in Hair et al., 2017), the impact of an exogenous latent construct is considered significant when the GoF = 0.38. As the above results indicate, the GoF value for the constructs of BSOF, CBIC, EO, MO, mentor capability, curriculum, and method is more significant than 0.38. This means that the structural model formed is good, fits the field conditions, and can be used to predict the endogenous latent construct.

**Figure 1** Structural model (see online version for colours)




*Source:* SmartPLS-4.0.8.2-Output (2022)

**Table 2** Construct reliability and validity

| | *Cronbach's alpha* | *Composite reliability (rho_a)* | *Composite reliability (rho_c)* | *Average variance extracted (AVE)* |
|---|---|---|---|---|
| Business strategic orientation focus | 0.977 | 0.977 | 0.979 | 0.796 |
| Creative business innovation capability | 0.970 | 0.970 | 0.973 | 0.704 |
| Curriculum | 0.923 | 0.923 | 0.942 | 0.765 |
| Entrepreneurial orientation | 0.957 | 0.958 | 0.965 | 0.796 |
| Market orientation | 0.933 | 0.934 | 0.952 | 0.834 |
| Mentor capability | 0.926 | 0.931 | 0.945 | 0.775 |
| Method | 0.955 | 0.956 | 0.968 | 0.882 |
| Penta-Helix Collaborative Business Incubation Process | 0.971 | 0.973 | 0.974 | 0.731 |

*Source:* SmartPLS-4.0.8.2-Output (2022)

### *4.3 Testing the hypotheses*

Testing the hypotheses can be done by estimating the path coefficients (original sample O), indicating the positive or negative impact of exogenous on the endogenous latent construct. In contrast, t-statistics or p-values suggest whether or not the effect of endogenous latent constructs is significant.

It can be seen from the data in Table 3 that the first research hypothesis (H1), 'BSOF is crucial for the ICCB in East Java, Indonesia', was supported. The t-statistic value was 6.876 > 1.96 (Z-score normal; $\alpha$ = 0.05) and p-value was 0.000 < 0.05 showed a significant impact in the positive direction with a path coefficient of 0.513.

**Table 3** Path coefficient and t-statistics

| | *Original sample (O)* | *T Statistics (\|O/STDEV\|)* | *P Values* | *Inference* |
|---|---|---|---|---|
| *Direct effects* | | | | |
| Business strategic orientation focus → Creative business innovation capability | 0.513 | 6.876 | 0.000 | H1 supported |
| Penta-Helix Collaborative Business Incubation Process → Creative business innovation capability | 0.448 | 6.005 | 0.000 | H2 supported |
| Penta-Helix Collaborative Business Incubation Process → Business strategic orientation focus | 0.904 | 57.578 | 0.000 | H3 supported |
| Business strategic orientation focus → Entrepreneurial orientation | *0.995* | *1,429.145* | *0.000* | EO takes precedence over MO |
| Business strategic orientation focus → Market Orientation | 0.990 | 784.632 | 0.000 | |
| Penta-Helix Collaborative Business Incubation Process → Curriculum | 0.943 | 175.930 | 0.000 | M is the main factor in PHCBIP success |
| Penta-Helix Collaborative Business Incubation Process → Mentor capability | *0.970* | *306.463* | *0.000* | |
| Penta-Helix Collaborative Business Incubation Process → Method | 0.953 | 231.078 | 0.000 | |
| *Specific indirect effects* | | | | |
| Penta-Helix Collaborative Business Incubation Process → Business strategic orientation focus → Creative business innovation capability | 0.464 | 7.272 | 0.000 | H4 supported |
| Penta-Helix Collaborative Business Incubation Process → Business strategic orientation focus → Entrepreneurial orientation | *0.900* | *57.169* | *0.000* | The success of PHCBIP has an impact on BSOF, especially EO |
| Penta-Helix Collaborative Business Incubation Process → Business strategic orientation focus → Market orientation | 0.895 | 56.723 | 0.000 | |

*Source:* SmartPLS-4.0.8.2-Output (2022)

Likewise, the second hypothesis of the research (H2), 'PHCBIP followed by creative businesses in East Java, Indonesia, is imperative in increasing the innovation capability', was revealed to be true. The t-statistic value was 6.005 > 1.96 (Z-score normal; $\alpha = 0.05$) and p-value was 0.000 < 0.05 showed a significant impact in the positive direction with a path coefficient of 0.448. Supporting the third hypothesis (H3), the optimal PHCBIP affected the BSOF of creative businesses in East Java, Indonesia. The t-statistic value was 57.578 > 1.96 (Z-score normal; $\alpha = 0.05$), and p-value was 0.000 < 0.05 showed a significant impact in the positive direction with a path coefficient of 0.904.

Meanwhile, there is also an indirect effect of the BSOF variable, which can be seen in the specific indirect effect in Table 3. We can see that the PHCBIP and CBIC were mediated by the BSOF, supporting the fourth research hypothesis (H4). The t-statistic value was 57.578 > 1.96 (Z-score normal; $\alpha = 0.05$), and the p-value was 0.000 < 0.05 showed a significant impact in the positive direction with a path coefficient of 0.904. Since the direct and indirect impact of the PHCBIP on the ICCB through the BSOF is equally strong, the mediation formed was a partial mediation.

A more in-depth analysis is based on the information in Table 3 showed that even though the first, second, and third research hypotheses are supported, based on the path coefficient and t-statistics values, the impact of the PHCBIP on the BSOF is the largest with path coefficient value was 0.904 and t-statistics value was 57.578. This evidence shows the strong role of the business incubation process organised by creative economy sector stakeholders in Indonesia (Penta-Helix: Academics, Government, Community, Business, and Media) on the business strategy orientation chosen by most creative business entrepreneurs.

In terms of the dimensions of business strategy, Table 3 also shows that EO took precedence over MO (EO-t-statistics = 1,429.145 > MO-t-statistics = 784.632), which means that creative business entrepreneurs focus more on EO in running their business than MO. So, the business incubation process has a major impact on the orientation focus of creative business strategies, especially EO.

When analysed based on the strength of the manifest construct, the two manifest constructs that have the highest loading factor are Initiate innovative actions (EO5) (loading factor value = 0.917) and achieve every goal with a brave action (EO1) (loading factor value = 0.913). Offset by a strong MO reflected by customer focus (MO2) (loading factor value = 0.961) and organisational learning (MO4) (loading factor value = 0.956), the action to innovate is carried out by considering what consumers want and learning owned by the organisation. This evidence is a strong reason why the BSOF also has a significant impact on the innovations produced because creative business entrepreneurs do have the initiative to innovate and dare to act to achieve goals. So it becomes interesting to review the PHCBIP more in-depth.

Based on the information in Table 3, it is also explained that the main factor for the success of the PHCBIP is mentor capability (M). So the mentoring capability of every business incubator that collaborates in incubating the incubated business is the key to the success of the incubation process, which has an impact on the incubatee's business strategy orientation and ultimately has an impact on the innovations produced. This relationship is very visible in the proof of the fourth research hypothesis. Judging from the origin of the mentors, the mentors who have the most capability in incubating tenant businesses are mentors from the community (M4) and academic mentors (M5) (indicated by the highest loading factor values, M4 = 0.934 and M5 = 0.925, see Figure 1). Mentors in the business incubation process will use the method and curriculum according to the

agreed collaborative incubation SOP. There are four methods used, namely: business assistance (Md1), facilitation (Md2), training (Md3), and mentoring (Md4), where the most prominent method used is training (in terms of the highest loading factor value of 0.965). While the curriculum is in the form of digital transformation (C1), product development (C2), professional business management (C3), marketing and branding (C4), and business model (C5), where marketing and branding is the most important curriculum given (in terms of the highest loading factor value is 0.921, see Figure 1).

## 5 Discussion

The main result of this research is that creative businesses in East Java, Indonesia, could innovate if they participate in collaborative business incubations organised by creative economy stakeholders, Penta-Helix: academics, established business practitioners, communities, government, and media, whether it is a collaboration between two or more business incubators according to the agreed model and SOP and according to incubatee needs. The ability of mentors, especially from the community and academia, to incubate the incubatee using the right methods, especially when providing training with the main marketing and branding curriculum, gives the incubatee a strong and focused business strategy orientation. A business strategy that focuses on EO, especially the courage of creative business entrepreneurs to carry out innovative actions according to the wishes of consumers (MO), is balanced with organisational learning so that the expected innovations will materialise. The direct and indirect influence of the PHCBIP on the ICCB through the BSOF is equally strong and forms a partial mediation role in the BSOF, which is still rare in previous studies.

The results of this study support the study's hypotheses in terms of the success of the collaborative business incubation process advocated by Penta-Helix's creative economy stakeholders: academics, established business practitioners, communities, government, as well as media. The success of the collaborative business incubation process is determined by a collaboration of at least two helices directly impacting the creative business innovation ability. This finding supports previous studies that favour the need for business incubation practices for innovation (Al-Mubaraki and Busler, 2013; Allahar and Brathwaite, 2016) which are carried out intensively (Posza, 2019) and systematically (Mvulirwenande and Wehn, 2020). However, the success of this incubation and our research's findings approve the competence of the mentor of each collaborating stakeholder as the most crucial factor in the incubation process. The method utilised in the incubation process is no less important than the quality of the mentor, both in terms of providing training, coaching, and mentoring to the incubatee as (Elamir and Mousa, 2022) proved the strong effect of training on innovation.

However, this result slightly contradicts the findings of Onyango et al. (2021), which reveal that the mentoring program in business incubation is not meaningful enough for tenants. This may have resulted from the differences in how the incubator assists the tenants. Most of our research participants were assisted by academics through student internships, and they felt this was advantageous, particularly for the creative business practitioners running their businesses. Developing the business incubation curriculum to produce cutting-edge innovation is vital to the mentors' competencies and incubation methods, and so is product development.

The study also proves the vital role of Penta-Helix's collaborative business incubation process in creative strategy orientation, which ultimately impacts innovation capabilities. In this case, the MO reflects the business strategy orientation (Widjaja and Sugiarto, 2022). Our research showed that the EO is more prominent than the MO. This result contradicts Najafi-Tavani et al. (2018) findings, indicating that absorption capacity plays the most significant role in building innovation and research (Akman and Yilmaz, 2019). In contrast, customers' power focuses on influencing innovative companies' abilities. This absorption capacity and customer focus are the drivers of MO. Hence, MO is more dominant than EO. This finding is likely influenced by our study's object, creative businesses that rely on individuals' talents and skills in creating innovations. Henceforth, the entrepreneurial characters are more important in the innovation process than MO, even though companies do not necessarily provide for consumers' needs. Drivers of MO such as shared information and knowledge, customer focus, information acquisition, and organisational learning must be optimised. Research has shown that SMEs' inter-organisational learning based on trust and spatial proximity factors is focal (Filho et al., 2021). Organisational learning in MO produces innovative organisational learning that reflects innovation capabilities. The results of research by Yousefi et al. (2022) prove that intellectual resources in organisations affect new product performance.

Anik and Sulistyo's (2021) research found an intersection between the measurement of EO and capital in product discovery. These authors continue saying that research and development are a significant concern. While the measurement is equally the same, greater emphasis is placed on entrepreneurs to be ahead of competitors. The company's ability to manage human resources is vital in increasing innovation capabilities to create a competitive advantage. Subsequently, employee participation in the innovation process reflecting their expertise must be supported by a qualified entrepreneurial and MO. This is where the process of building a sharing culture and partnership with staff, including management's support for employees, fairness, and communication, becomes profound (Benyahya and Matošková, 2021).

Our finding suggested that participants indicated themselves as target achievers, competitors, assertive actors, risk takers, innovators, research and development researchers, first movers, and high achievers. Despite the high EO behaviours demonstrated by the participants, MO remains fundamental for consumers' desires for innovative products. This finding is in line with Kabukcu's (2015) research, which discovered that the entrepreneurs' focus on strategy results in creative ideas leading to radical innovation (Hughes et al., 2021), and this requires innovative leadership (Hoffman and Sergio, 2020). Therefore, creative business entrepreneurs must be passionate about adapting innovations to prearranged plans and existing changes (Hermawati, 2020). The participation of creative business individuals in the current PHCBIP is a strong trigger for the growth of entrepreneurship capabilities.

## 6 Conclusions and recommendations

The study reported here explored the impact of the Penta-Helix's collaborative business incubation process on the focus of creative businesses' strategy orientations and innovation capabilities. An optimal collaborative business incubation process in terms of mentors, methods, and curriculum, as well as collaboration of two or more stakeholders, impacted the focus of business strategy orientation, especially EO, which ultimately

impacts innovation. The business strategy orientation partially mediates between the business incubation process and the innovations created. There are slight empirical differences in the relationship between the business incubation process and strategic orientation.

This research provided managerial implications for creative business entrepreneurs to follow the PHCBIP to completion so that the focus on business strategy orientation will be more precise, impacting the ability to innovate. In this very competitive era, we must have a competitive advantage in innovation, as suggested Anjaningrum et al. (2021a, 2021b). This research also contributed a theoretical implication, the development of the strategic management theory RBV of the Firm, in which company resources which were the main key to achieving innovation, need to be driven by external parties such as a collaborative business incubation process of two or more stakeholders.

Further research can explore the position of collaborative business incubation, whether it can only be an exogenous variable or positively moderate the effect of strategic business orientation on innovation capability. In addition, future researchers must determine the research object by focusing on one sub-sector, including demographic respondents in the model as a control variable, and specifying innovation (product, process, marketing, and others).

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