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HOW OPEN INNOVATION IMPLEMENTATION IN DIGITAL ENTERPRISES INFLUENCES INDONESIAN GOVERNMENT POLICY?

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ABSTRACT

The nature of new business innovation activities is increasingly scattered, multidisciplinary, cross-border, cross-institutional, and cross-temporal. The culture influences the commitment to open innovation. Organizational culture is a vital factor in radical innovation's success and integration of internal organizational structures, policies, and partnerships. The paradigm shifts from closed to open innovation have been used in various business relationships. The research objectives are determining the primary factor of open innovation success in Indonesia based on digital enterprise experiences and the extent to which the government's participation becomes meaningful and results in adaptive corporate policy. The study will be qualitative and inductive, utilizing multiple case studies. Due to the epidemic, in-depth interviews with senior management were conducted through video conferences and private messaging. The research will employ a literature review and an expert interview to ascertain how digital enterprise cooperation contributes to long-term growth. The result shows how the O.I. strategy implemented in digital firms influences government policy. The Indonesian government may enlist the assistance of international organizations or multinational corporations to facilitate organizational reforms necessary to create an open innovation-friendly culture. Government businesses require specialized staff to reap the benefits of present legislation.

Keywords*:* open innovation, business model, intellectual property, ecosystem, policy

ABSTRAK

Suatu kegiatan hasil dari sebuah inovasi bersifat menyebar, multidisiplin, lintas batas, lintas kelembagaan, dan melintasi waktu. Untuk sebuah inovasi, faktor budaya harus benar-benar diperhatikan. Budaya organisasi merupakan faktor penting dalam inovasi sehingga struktur organisasi secara internal, kebijakan, dan kemitraan benar-benar terintegrasi. Pergeseran paradigma dalam inovasi, dari yang tadinya tertutup menjadi lebih terbuka telah digunakan dalam berbagai jenis usaha. Penelitian ini bertujuan untuk menentukan faktor utama dari keberhasilan perusahaan digital di Indonesia dalam melakukan inovasi dan sejauhmana upaya pemerintah menjadi lebih bermakna dan menghasilkan kebijakan yang adaptif. Penelitian ini akan bersifat kualitatif dan induktif, dengan studi beberapa kasus. Sehubungan dengan pandemi covid-19, data dikumpulkan melalui wawancara mendalam dengan manajemen senior secara konferensi video dan pesan pribadi. Penelitian ini akan menggunakan tinjauan literatur dan wawancara ahli untuk memastikan bagaimana kerja sama perusahaan digital berkontribusi pada pertumbuhan jangka panjang. Hasil penelitian ini menunjukkan bagaimana strategi terbuka dalam inovasi yang diterapkan di perusahaan digital mempengaruhi kebijakan pemerintah. Pemerintah Indonesia dapat meminta bantuan organisasi internasional atau perusahaan multinasional untuk memfasilitasi reformasi organisasi yang diperlukan untuk menciptakan budaya yang ramah dalam inovasi. Dalam tugasnya, pemerintah membutuhkan staf khusus untuk menuai manfaat dari undang-undang ini.

Keywords: inovasi terbuka, model bisnis, hak kekayaan intelektual, ekosistem, kebijakan

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BACKGROUND

Many innovations have been produced in government public services but have yet to demonstrate a more significant benefit (Andhika, 2018). Some regional government agencies have implemented it, while others have not. Therefore, some regional government agencies need to be made as innovation laboratories to encourage public service innovation (Wiryanto, 2020)

Nowadays, the government must consider the paradigm shift from closed to open innovation in various business relationships (Moschner & Herstatt, 2017), whether between small and large organizations or between businesses, academia, communities, research, and government institutions.

The nature of new business innovation activities is increasingly scattered, multidisciplinary, cross-border, cross-institutional, and cross-temporal (Kratzer et al., 2017). Therefore, open innovation (O.I.) should be founded on integrated multidisciplinary collaboration, co-creation of shared value, ecosystem nurturing, unleashing exponential technologies, and a focus on innovation adoption (Curley, 2015).

Chesbrough and Bogers characterized O.I. as a distributed innovation process built on purposefully controlled information flows across organizational borders, utilizing financial and non-financial mechanisms consistent with the organization's economic model (Bogers et al., 2019). In some ways, O.I. collaboration might lead to radical changes. In the long run, radical innovation will provide businesses with a durable competitive edge by enhancing corporate performance, customer happiness, and cost reduction (Parasol, 2018). O.I. must be connected to and incorporated into the company's strategy (Vanhaverbeke, 2013). Its originality and competencies should be dynamic to maintain the company's competitive edge (Peris-Ortiz et al., 2018).

The culture influences the commitment to open innovation (Parveen et al., 2015), (Curley, 2015). The organizational culture is a vital factor in the success of radical innovation (Teng et al., 2018) and a substantial barrier to adapting to the external world. It also integrates organizational structures, policies, and partnerships. Organizational culture is critical for successfully implementing an O.I. and connecting it to its strategy (Aquilani et al., 2017).

The research examines the impact of inter-firm links on the operating income of Chinese SMEs in the manufacturing sector from an ecosystem viewpoint. There are focal SMEs with notable organizations and ties to the center circle since they are critical components of the innovation ecosystem. These entities include upstream and downstream suppliers, customers, and rivals, which are crucial in driving innovative performance. According to the survey, manufacturers, suppliers, competitors, and other business partners significantly shape the business ecosystem (Mei et al., 2019).

METHOD

The study will be a qualitative and inductive method. Due to the epidemic, in-depth interviews with senior management were conducted through video conferences

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and private messaging. The I.T. Director of Company-1, the Director of Digital Business and Vice President of Human Capital and Strategic Management of Company-2, and the Founder of Company-3 participated in this study. The research will employ a literature review and an expert interview to ascertain how digital enterprise cooperation contributes to long-term growth. The result shows how the O.I. strategy implemented in digital firms influences government policy.

RESULT AND DISCUSSION

Multiple-case Study

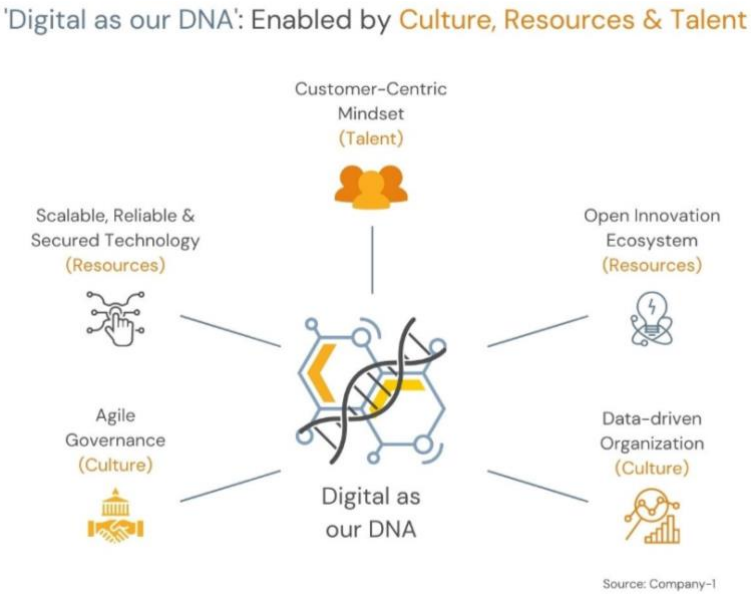
The study identified many critical aspects that contribute to the success of O.I. adoption in digital firms. Cultural change, collaborative procedures, globalization, risk-sharing, and intellectual property sharing within a corporate ecosystem may contribute to sustainable growth. The research objects include a bank, a telecommunication company, and a digital startup.

Company-1: Banking Industry

The culture transformation has been the most substantial driving factor, either the business or social culture in the company. The corporate culture shapes the business strategy and implements daily action. The social culture is bottom-up, but the business culture is top-down, relying on solid leadership supporting the corporate plan.

The adoption of O.I. begins with value creation in alignment with the business aim of fostering a performance-driven culture. The value creation process begins with the firm's profitability due to a client's profitability. As a result, the consumer is paramount. Cultural change is also ingrained in the company's strategy, emphasizing the importance of culture, resources, and people as essential facilitators of digital transformation. Figure 3 illustrates how the financial industry incorporates the O.I. ecosystem into its company strategy:

Figure 1. O.I. Ecosystem of Company-1 (Source: Company-1)



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The second driving force is co-creation, which is consistent with our current collaborative period. The corporation should collaborate extensively with a startup dubbed "fintech" in the banking industry. The corporation will partner with the rival to satisfy the customer's obsessions. Microsoft is the industry benchmark, a worldwide firm whose innovation has shifted from closed to open. Microsoft has undergone significant adjustments to increase its customer focus, "customer-centricity," and customer control. Microsoft is developing programs in collaboration with its competitors – Apple and Linux. During the VUCA age, major organizations may remain competitive by focusing on their core competencies, while others should be acquired through collaboration. Speed becomes an essential requirement.

Co-creation entails either work-sharing or risk-sharing to arrive at a cohesive solution. As a result, I.P. and risk-sharing are integral parts of the co-creation process during the firm partnership. Since the ICT business is becoming increasingly borderless, the co-creation process will result in globalization, and the firm will be able to locate the most fabulous ideas everywhere. The open API strategy is the enterprise's approach to implementing O.I.

The adoption of O.I. must be controlled correctly, particularly in the banking industry. As a result, Company-1, as a large corporation, should apply a hybrid model, a balanced model of dynamics and stability, to manage the enormous risks. Company-1 mitigates the risk of O.I. by utilizing a hybrid approach; thus, not all core businesses interact with startups.

Figure 2. Hybrid Model (Utoyo et al., 2019)

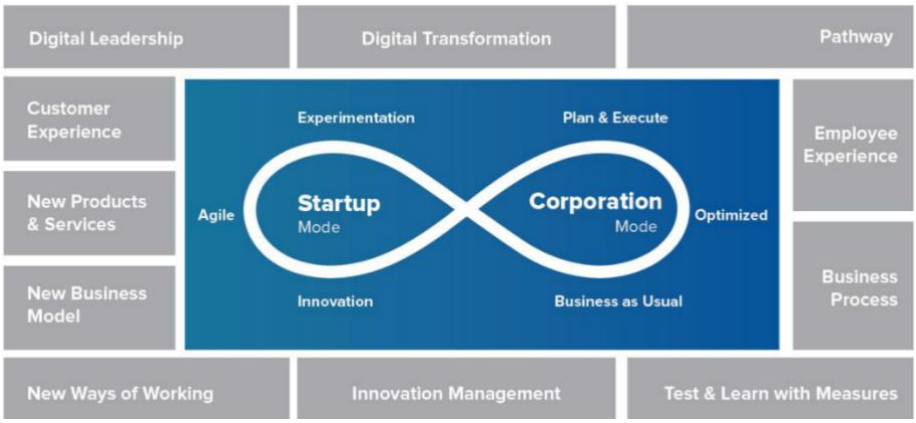

Figure 2 displays how big companies implement O.I. by dividing it into two modes of operation. Experimentation of all innovative products stays in startup mode, while corporation mode focuses on plan and execution.

Company-2: Telecommunication Industry

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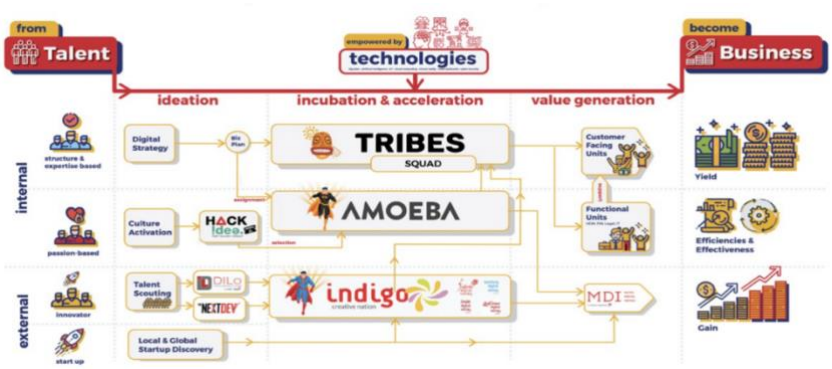
The telecommunications industry has been undergoing commercial upheaval due to the emergence of global OTT (over-the-top) players such as WhatsApp, Facebook, and others. The disruption reduces the revenue generated by the company's legacy business. The corporation develops a plan for survival by transforming into a digital telecommunications company. However, competing with established global digital firms such as Google, Amazon, and others is complex.

Culture is critical, particularly an innovation culture. As a state-owned corporation, the company's administration and bureaucracy must be unencumbered by an acceptable culture. Customer-centricity is the optimal strategy for company innovation. A customer-centric culture is market-driven. However, as the world's largest ICT firm, undergoing a digital transformation is complex in the VUCA age, when the speed of change is unpredictable.

Cultural transformation and organizational agility will drive co-creation by establishing diverse cooperation patterns to adapt to changing conditions. The relationship between intellectual property procurement and vendor should be the partnership's most vital section. The organization establishes a digital business division under the leadership of a specific director to oversee certain tribes. Each tribe may collaborate with external partners, manage its budget, and tailor its offerings to meet specific needs. An agile organization enables autonomy at the level of a small division. It is a means of mitigating Company-2's partnership risks.

The co-creation process will influence IP-sharing and risk-sharing, as external party engagement entails risk. Another possibility is that the creator retains intellectual property ownership while the other firm assumes the risk of consumer complaints. For example, during the pandemic of covid, the "work-from-home" application has become critical. To reduce time to market, the telecommunications company builds the business model while the innovator retains intellectual property ownership. As seen in Figure 3, the digital business division handled several collaborations to create an innovation ecosystem.

Figure 3. Key Partners of Digital Business Division (Source: Company-2)



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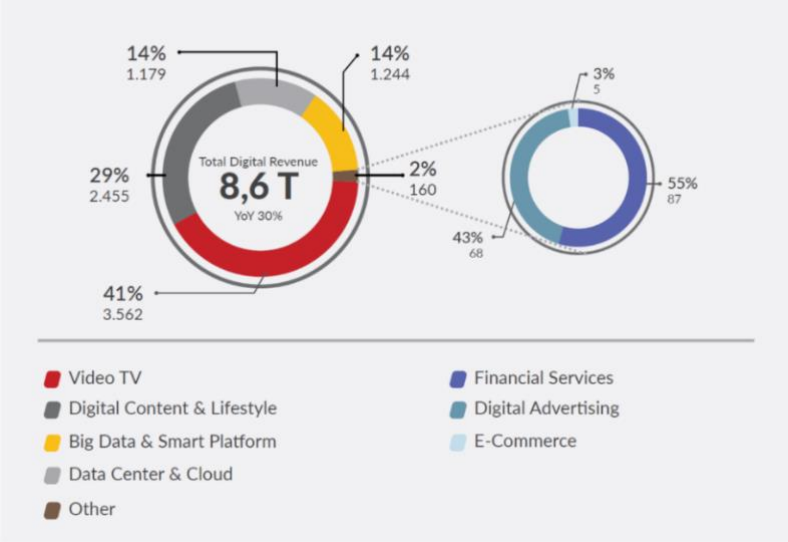
The other important element for O.I. is globalization, as the globe is flat in the digital business, and there are no regional borders. The company's success stories stem from its collaborations with developers in India and Malaysia. For instance, during the pandemic, the government commissioned the business to create a special-purpose program to track viral encounters.

Global collaboration may not necessarily result in cost savings, as it entails additional expenses. However, because the relationship affects a new revenue-generating business potential, the overall cost of ownership is less than the long-term gain. With the assistance of global players, digital transformation becomes critical since consumer characteristics change more quickly, are simpler to manage, and are more secure. The more the company's access to information, the faster it can meet the customer's expectations. The growth indication indicates that the company's revenue from digital business increased 30% year over year in 2019, from IDR 6.640T to IDR 8.601T, as seen in Figure 4.

Figure 4. The Growth Indicator of Company-2 (Source: Company-2)



To extend the market, the link between open innovation and business strategy is established by building a digital platform – IoT, big data, cloud, and data center. Digital business, the new segment, is focused on two domains: digital platforms and digital services. The core goal is to produce products in both domains, utilizing internal or external resources. The corporate action is I.P. acquisition by sharing or purchasing model.

Company-3: Digital Startups

As the primary driving force, culture reform is required for O.I. cooperation to succeed. The O.I. ecosystem is synonymous with the process of cultural change. It involves shifting from a "fixed mindset" to a "growth mindset." O.I. cooperation will be more successful and lasting with a growth attitude.

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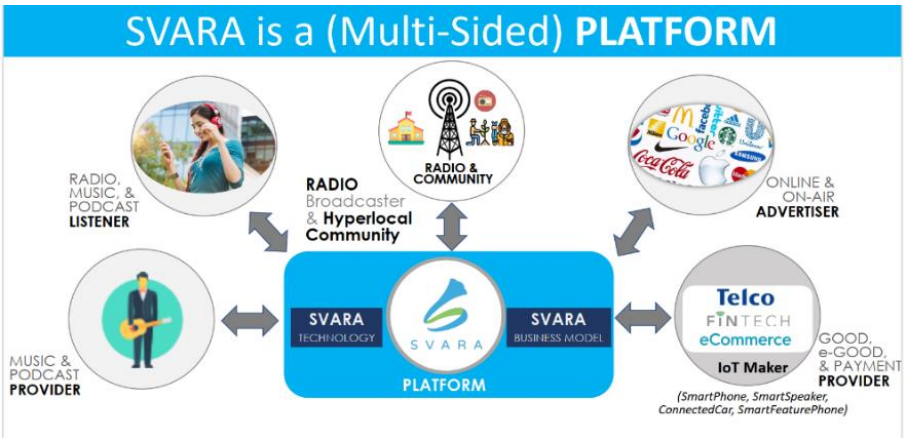
The culture change that supports the O.I. ecosystem will nurture the co-creation process necessary to provide client value.

The most critical aspect of existence is acquiring a paying client as a startup. A business is not a product if no one purchases it. As a result, a sustainable firm must gain a sufficient number of consumers willing to pay an adequate amount of money within a reasonably short period. That is why co-creation is critical to the survival of startups.

Co-creation promotes intellectual property and risk sharing since value creation is the product of successful cooperation or partnership. As a result, not only all information but all dangers are shared. On the other hand, true collaboration will result in a more comprehensive client solution. Each of these three characteristics is connected to benefit the co-creation process.

From the outset, digital businesses should have opted for O.I. cooperation to share risk and intellectual property with third parties. The product is a platform that is compatible with all mobile providers. The more partners participated in the company concept, the lower the initial investment required. Collaboration with consumers and suppliers is the primary objective of co-creation. It will amplify the network effect and accelerate the platform ecosystem's development, as seen in Figure 5 below.

Figure 5. The Network Effect of a Platform (Source: Company-3)



Co-creation, followed by I.P. and risk sharing, eventually resulted in sustainable growth. Globalization facilitates access to more excellent information, particularly in the international world of digital commerce. Industry Revolution 4th began in 2011 in Germany, and owing to globalization, this phenomenon spread to underdeveloped nations such as Indonesia after seven years. All digital businesses should keep a competitive edge by engaging with the global network, as technological development is always initiated in developed nations. Access to a broader body of information can result in cost savings in either R&D or the total cost of manufacturing.

Sustainable growth requires value chain extension, which means that breakthrough technologies should produce

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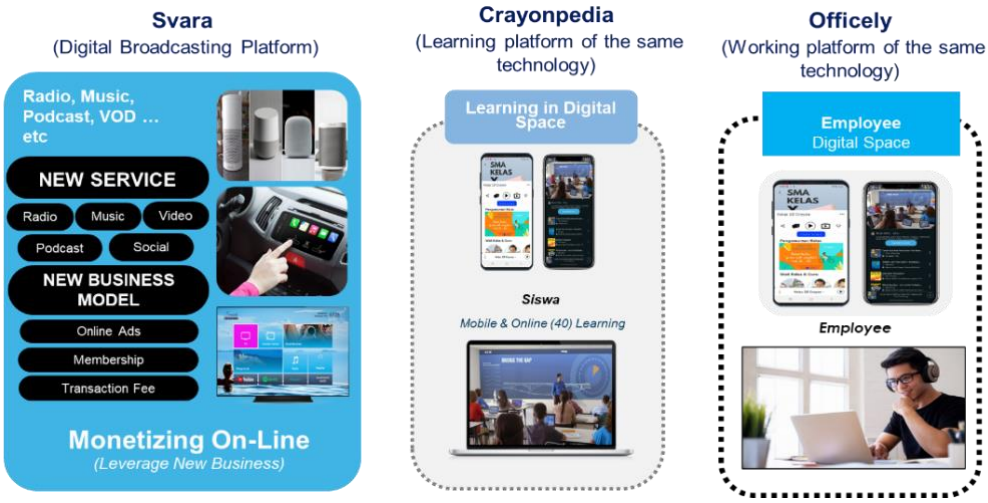
additional business models by identifying distinct consumer groups, as described in figure 6 below.

Figure 6. Extending the Value Chain (One Technology for Three Business Models). Source: Company-3, 2021



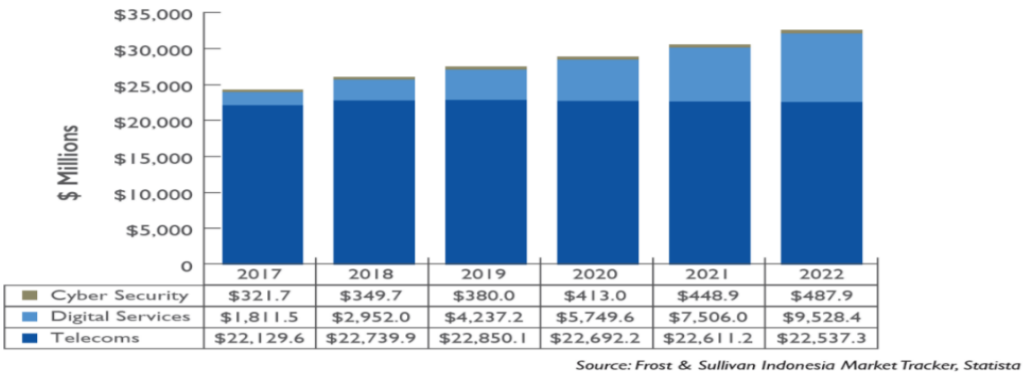
The same technology in digital media transformation has been used in education and business transformations.

Indonesia's digital enterprises

Indonesia's population exceeds 260 million, drawing digital firms from domestic and international players. According to the EU-Indonesia Business Network (2019), the ICT industry is one of the most significant industries, accounting for 3.76 per cent of GDP and over USD39 billion in value. Indonesia has become Southeast Asia's most lavish spender on information technology, ranking 19th globally. As a result, digital firms require a sound plan to optimize their profits.

As seen in Figure 7, digital services are expected to dominate the ICT industrial sector by 2022 (Frost&Sullivan Indonesia Digital Market Overview 2018).

Figure 7. Total ICT Market Forecast, Indonesia, 2016-2022 ($ U.S. Millions)



	2017	2018	2019	2020	2021	2022
Cyber Security	$321.7	$349.7	$380.0	$413.0	$448.9	$487.9
Digital Services	$1,811.5	$2,952.0	$4,237.2	$5,749.6	$7,506.0	$9,528.4
Telecoms	$22,129.6	$22,739.9	$22,850.1	$22,692.2	$22,611.2	$22,537.3

Source: Frost & Sullivan Indonesia Market Tracker, Statista

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The research objectives are determining the primary factor of open innovation success in Indonesia based on digital enterprise experiences and the extent to which the government's participation becomes meaningful and results in adaptive corporate policy. It integrates the open innovation concept with the professional knowledge of digital firms. Agility in organizations, including the government, is necessary to promote the nation's prosperity by enabling business ecosystems.

Open Innovation (O.I.)

In the late 1980s, the innovation system evolved as a paradigm for analyzing innovation development, including the function of diverse players located in socioeconomic settings. It stresses each stakeholder's collaborative role, networking, and interactive learning as the primary drivers of innovation. The innovation system creates environments for novelty and upends established conditions. In the triple-helix model, linkages between universities, industry, and government are critical components of the dynamics and processes inside innovation systems (Porto-Gomez et al., 2019). The firms or organizations adopting O.I. improve their products and services faster (Pile, 2018).

H. Chesbrough popularized the phrase "O.I." (2003). According to one notion, businesses would be more efficient if they drew on external expertise to produce breakthroughs. O.I. has pushed organizations to acquire intellectual property and values beyond their internal limitations. What distinguishes O.I. is the challenge of reinventing the organization's standard R&D approach based on a closed innovation system (Pile, 2018).

Intellectual property (I.P.) from OI-based businesses is recognized as a new class of assets capable of augmenting the present business model or enabling the creation of new business models. As a result, O.I. proposes that businesses should be active I.P. sellers when external I.P. does not match their business model and active I.P. buyers when external I.P. does (Chesbrough, 2012).

Collaboration with external partners resulted in three O.I. processes using this specification. The first is outside-in, which sharpened the company's knowledge through external innovation. The second step is inside-out, in which internal sources of information make use of surface knowledge. Finally, the final strategy combines the outside-in and inside-out approaches (Moschner & Herstatt, 2017)

The standard view of closed innovation is that it depends entirely on internal sources of invention. Simultaneously, O.I. enables external influences to work with internal sources, increasing the likelihood of developing an innovative new product. The following figure 8 are the concepts for a corporation that implements the O.I. concept:

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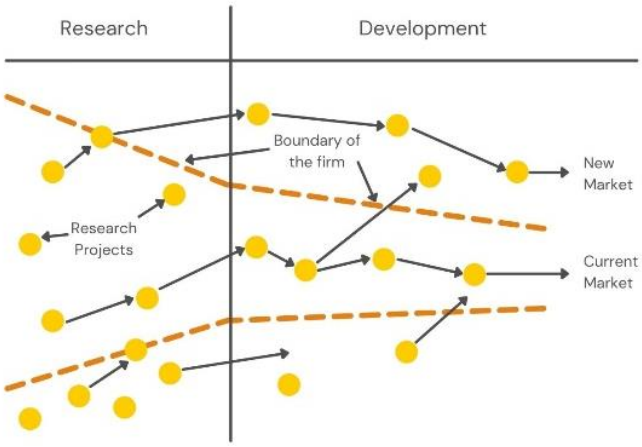
Figure 8. O.I. Concept (by author)



Open Innovation and The Firm

O.I. is the primary driving factor behind a business's sustainable development. The straightforward premise of O.I. is that companies and organizations should be more adaptable and receptive to innovation processes. Chesbrough believes that companies could leverage open innovation to grow their business models. As a result, businesses will enhance their intellectual property to raise their commercial worth (Moradi et al., 2021).

Kratzer et al. (2017) discovered that many large enterprises need help to deploy O.I. at the operational level. Two critical elements have been considered: innovation culture and innovation openness. Other studies discovered how O.I. impacted the firm's success in terms of creativity. Inbound and outbound O.I. is considered independent factors, whereas firm and innovation performance are dependent variables (Paula et al., 2018).

The Future of O.I.: Innovation Ecosystem and Open Innovation

Recently, the paradigm evolved toward orchestrating various participants with diverse responsibilities throughout the innovation process; hence, it must be handled effectively (Chesbrough, 2012).
The situation has prompted many firms to expand their collaboration across their ecosystems. As a result, the next-generation O.I. concept (OI2) should incorporate a collection of design patterns that enable innovators to operate more efficiently and effectively in response to emerging digital possibilities (Curley & Salmelin, 2018).

An innovation ecosystem is a loosely connected network of businesses and organizations that collaborate and compete to create new goods and services through coevolving capabilities around a standard technology, information, or skill set. (Xie & Wang, 2020a).

Economic activity generates valuable goods and services for clients and also ecosystem members. They coevolve their abilities and responsibilities through time and align themselves with the objectives set. One or more major companies control the ecosystem. While the organizations at the top may shift over time, the ecosystem's goal stays constant. A

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community recognizes leaders because they enable people to collaborate (Leviäkangas & Öörni, 2020).

The inter-organizational network becomes the focus of innovation, exploring, and exploiting network linkages. Business ecosystems may enhance their strength, pool their resources, and develop novel applications for discoveries (Ferreira & Teixeira, 2019).

The key conclusion is that the firm should control the essential assets upon which other businesses construct supplemental goods and services to establish itself as the dominant player or 'hub firm' in the burgeoning business ecosystem. (Masucci et al., 2020).

The term "open innovation" refers to leveraging external information sources from the perspective of a focused business. Innovation ecosystems are a subset of open innovation configurations. O.I. is particularly interested in enterprises that leverage external data sources and engage with their partners (Jütting, 2020). Thus, the future of O.I. is an innovation ecosystem that embraces huge openness in knowledge orchestration.

Cultural change is the primary element determining O.I.'s success in digital organizations. According to previous research, all businesses implementing O.I. would confront cultural and organizational shifts as hurdles. As a result, integrating knowledge within and outside the company will fail (Moradi et al., 2021).

Culture has always played a key role in driving innovation in various ways. Companies that embrace O.I. must define the O.I. culture to resolve O.I. issues (J. H. J. Yun et al., 2020). Culture, skill, and resources enhance an O.I. ecosystem (Xie & Wang, 2020). Organizational culture has emerged as a significant driver of O.I. in Malaysia's high-tech sector. Culture is crucial for organizational integration and adaptability to the external environment (Naqshbandi et al., 2015).

The second driving force is co-creation, fueled by a cultural transformation to accomplish O.I. cooperation. Recently, the notion of a digital platform has enabled enterprises to engage with external partners in novel ways. It seeks out and develops new ideas, technologies, and information. In other words, the digital platform is critical in searching for details outside businesses' confines. The co-creation process enables firms to use global ideas to address internal challenges and close innovation gaps (Abbate et al., 2019). Additionally, co-creation demonstrates the parties' close engagement to transmit and exchange information (Malm et al., 2020).

O.I. results in faster innovation processes, easier market entry, enhanced distinctiveness, and new income sources (Nunes & Abreu, 2020).

Company 3 is a digital startup focused on media and broadcasting change. It began implementing O.I. in 2017. The cultural divide is less tight than with Company 2, whose founders are of a different age. Within two years, it raised a pre-series A round of funding. Company 3 maintains its innovation by establishing a market-expanding innovation ecosystem. Fortunately, the COVID-19 pandemic in 2020 expedited the development of an O.I. ecosystem for several digital firms, enhancing their value propositions. They

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collaborated on several items to expand into new markets, as seen in Figure 9.

Additionally, Company-3 licensed its intellectual property to another digital company serving a variety of sectors. As a result, in the middle of 2020, Company 3 launched a new digital company focused on education's digital transformation. In early 2021, it found another new digital company to address the challenges of digital change in businesses and organizations. The following figure shows how Company-3 derives new companies with other partners with co-creation mechanisms, as displayed in figure 9 below:

Figure 9. O.I. action: I.P. selling (Source: Company-3)

Figure 9 shows that the add-on feature indicates the knowledge integration between Company-3 and its partners to generate new products or services. The new product might belong to the partner, and it is called the "white label" business model.

Startups rely on I.P. sharing to thrive in the early stages due to a need for alternatives. On the other hand, large corporations seek to protect their intellectual property from sustaining their revenue.

Suppose Indonesia wishes to maintain or strengthen its competitive position in the global knowledge economy over the next decade. In that case, public policy must establish certain fundamental principles consistent with the requirement of O.I. as Germany did ten years ago. It starts with education and the creation and dissemination of human capital. Secondly, examining how the change from closed to open innovation necessitates the development of new funding mechanisms. Third, addressing intellectual property policy challenges, and fourth, determining how O.I. promotes policymakers to think in terms of networks rather than individual enterprises to foster competitiveness and rivalry in product markets (H. Chesbrough & Vanhaverbeke, 2011).

Managerial Implication

Our findings demonstrate how O.I. has a considerable probability of boosting the success of digital firms or lowering their starting mortality rate. Certain businesses

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must establish a collaborative network and form strategic alliances to share their intellectual properties. In Indonesia, huge enterprises typically leverage inbound O.I. (outside-in knowledge flow) to capitalize on startups that threaten their established operations. By contrast, startups harness outward O.I. (inside-out knowledge flow) to raise capital from corporations and extend market access.

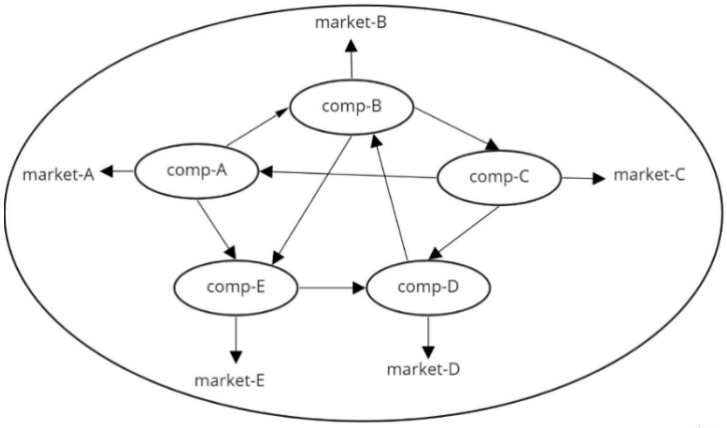
Reducing total expenses or increasing value over time to achieve mutual benefits is inextricably linked to the firm's co-creation with its surroundings. Thus, collaboration is vital to the open business model's success. It promotes co-creation between the company and its ecosystem through collaborative resources focused on value generation and delivery (Aranha et al., 2015).

Empirical support of I.P. has been inadequate, raising questions about its role in correcting market failures and the potential of governmental R&D investment "crowding out" private R&D expenditures. Hence, the relationship between I.P. and a firm's business performance needs to be more evident. According to some experts, the issue for most economies, particularly emerging ones, is not determining whether I.P. is useful but formulating proper I.P. and implementing it efficiently (Cheah & Ho, 2020).

The key consideration when forming a partnership is establishing the fairest manner of intellectual property exchange, and the government might be the best choice to conduct the issue.

For instance, a collaborative network comprises five distinct O.I. ecosystem firms. All businesses collaborate on innovation and operate unique business strategies. They enter the same market and occasionally manage demands while including other network members. Figure 10 illustrates how the collaborative network helps the long-term viability of all businesses.

Figure 10. Collaborative Network for O.I. ecosystem (adapted from (J. H. J. Yun et al., 2020)



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Recommendation: The Indonesian Government Policy

Many years ago, Indonesia's government established the Penta helix. The government must establish a cluster-based collaborative network from a policy standpoint. Previously, the triple-helix or Penta-helix model was adequate, but the programs needed more consistency. It is a collaboration between the government, society, academia, corporate entities, and media. The aim is that all parties will work together to resolve the gaps. Hence, the ministry or government agency should act as an enabler for the ecosystem to thrive and contribute to the national economy.

Indonesia adopted several rules encouraging O.I. inside the corporate environment a few years ago. Industry-university partnership is required to develop an e-catalogue strategy for new items. The government granted a super-tax discount of up to 300 per cent for companies collaborating with universities on research and development. Industries will benefit from a tax break if they implement an internship program for students enrolled in a vocational school. It is critical to maintaining consistency, and the implementation could be better. As a result, businesses require specialized staff to reap the benefits of present legislation.

In Indonesia, the O.I. adoption is more closely connected to the business ecosystem, ensuring that the implications are more substantial. The primary issue is that the ecosystem leaves the benefit to each stakeholder needing clarification. Previously, no incentives or norms were in place to encourage ecosystem collaboration. Furthermore, the IP-sharing was uncertain, meaning the network connection needed to be more sustainable.

Indonesia's Ministry of Education has begun adopting a new curriculum dubbed MBKM (Merdeka Belajar Kampus Merdeka). The program might be the government's way of promoting a more efficient ecosystem. Using set objectives and incentives, it sought to foster university-industry collaboration. There is a clear flow of knowledge between partners. It can generate an O.I. ecosystem since the project may catalyse future collaboration and creative goods.

Cultural transformation fuels co-creation, which is critical to O.I. Culture dictates how individuals interact. Because O.I. is about teamwork, individuals require a culture that fosters optimal outcomes regarding the invention. The Indonesian government may enlist the assistance of international organizations or multinational corporations to facilitate organizational reforms necessary to create an OI-friendly culture.

CONCLUSION

The government can adopt the company's success in open innovation. Cultural flexibility in adaptation, skill, and resources is a key to enhancing open innovation in the government system.

Open innovation is the entry point of collaboration to attract public participation in progress and service. The government must move quickly to adopt advances in the company to serve the community.

Collaboration with the public and all stakeholders is the main factor in boosting the success of digitalize services.

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Government and all parties must establish a collaborative network and form strategic alliances to share their intellectual properties. Remember to prepare regulations so that there is a basis for implementation.

Indonesia adopted several rules encouraging O.I. inside the corporate environment a few years ago. It is critical to maintaining consistency and implementation. As a result, government require specialized staff to reap the benefits of open innovation.

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