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# Optimizing Business Growth through Entrepreneurial Leadership and Open Innovation Model of Data Talent Company

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*Abstract* - **The data talent company captures the agile business ecosystem's opportunities by focusing on Artificial Intelligence (AI) and the data talent ecosystem in Indonesia. Indonesia's Digital Competitiveness index is still far behind the other country, notably in digital talent and education. The entrepreneurial leadership of the founders led the company to applied open business model innovation, especially on the product innovation process. Capability readiness plays a significant role in order to realize the business vision. A clear vision and strategy roadmap is the framework needed by the company to identify the required internal capability to execute the business goals and overcome the external challenges. This study used the Entrepreneurial Leadership Model and the Holistic open innovation model to explore the internal business issue and applied the Managing Growing Model and Ansoff Matrix to formulate the focused strategy recommendation on entrepreneurial leadership and open innovation model that leads business growth.**

*Keywords* - **Entrepreneurial Leadership; Open Innovation; Business Model Innovation; Product Innovation; Artificial Intelligence; Data Analytic Talent.**

## I. INTRODUCTION

The rapid technology advancement drives Indonesia's business ecosystem to shift to digitalization and gain significant economic benefit in the long run. However, Indonesia still overcomes the lack of digital high-skill talent to build the digital technology business ecosystem. According to "World Digital Competitiveness Index 2020", Indonesia's Digital competitiveness was ranked 56th of 63 countries with talent as this index's sub-factors take the 43rd rank. The other index's sub-factors, education (training), takes the last position at 63rd rank. However, the future readiness factor of Indonesia Digital Competitive places a better grade at 43rd, with the utilization of big data and analytics sub-factors at 17th ranked (IMD, 2020;92-93).

In this study, IYKRA selected as the research object. IYKRA is a data talent company that captures digitalization challenges by focusing on building Artificial intelligence and data analytics talent ecosystems in Indonesia. IYKRA's vision can help digitalize Indonesia's business ecosystem by providing high-skill talent in big data analytics and technology infrastructure adoption. As a result, IYKRA business value overcomes the digitalization challenge by leverage big data to drive real-time decisions across the value chain because this is also one of the key factors to succeeding in the digital era (McKinsey, 2016;23). The captured business opportunity will drive IYKRA to be the market leader in this industry and challenge the IYKRA business growth process. As long as digitalization is necessary, a new business player will provide a similar business value. Therefore, IYKRA needs a leadership model that focused on the internal company, market, and social problems.

### *A. Research Questions*

To assess the problem, the authors formulate the following questions:

1. How the entrepreneurial leadership affects the IYKRA business model and product innovation sustainability?
2. How do the entrepreneurial leadership and open innovation business model enhance its growth ability?
3. What are the critical challenges of IYKRA as the open innovation model company in the business ecosystem?
4. How does IYKRA play an essential role in supporting the Indonesia business ecosystem to overcome the tech-data talent and capability gap?

### *B. Research Objectives*

This research analyzes the internal and external factors of the IYKRA's growth, business model, and product innovation. This research focuses on the entrepreneurial leadership and open innovation of the IYKRA business model that influences the IYKRA growth. Furthermore, the study aims to find the best practice to support IYKRA in formulating the strategy and creating business fundamentals to gain business sustainability. Simultaneously, the proposed solution must be the best understanding for IYKRA as the Artificial Intelligent and Data Talent company in the digitalization business era.

## II. METHODOLOGY

The research methodology for this research used qualitative and quantitative methods—the primary data collection gathered by interviewed and questionnaires. The online interview was conducted between March 9 – April 12, 2021, and participants were the IYKRA founders and the related internal teams as the respondents. IYKRA has three founders and has a responsibility as Chief Executive Officer (CEO), Chief Business Development Officer (CBDO), and Chief Operating

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Officer (COO). In this study, the CEO was named founder 1; the CBDO named founder 2, and the COO named founder 3. The authors conduct an in-depth interview with the IYKRA founders to explore the founders' leadership to build the business and the challenges to grow the business.

To identify the IYKRA founder's leadership behavior, the authors applied the entrepreneurial leadership model by Thornberry. The authors gather the data about the behavior characteristic of the founders when leading the company and create a two-way confirmation method by spread the questionnaire to the founders and employee's point of view.

The authors applied Holistic Open Innovation Model (Cornell, 2012) to analyze the IYKRA open innovation model. The business issues exploration conduct based on the founders' interview, internal team interviews (operation and business development), and Entrepreneurial Leadership Questionnaire (ELQ) survey. To formulate the strategy recommendation, the authors applied the managing growth model and Ansoff matrix analysis based on the interview and questionnaire analysis result.

## III. LITERATURE REVIEW

### A. *Entrepreneurial Leadership*

The entrepreneurial leader has a mindset to convert problems into opportunities and create business and social value (Babson.edu, 2020). Entrepreneurial leaders improve by time and practice. The entrepreneurial leader can develop unique mental models that support people's ability to create and build a better business ecosystem. According to Thornberry (2006, 90), the entrepreneurial leadership model consists of five model dimensions:

**General Entrepreneurial Leadership Behaviour**

This behavior reflects the ability to apply an entrepreneurial approach at work by provide an encouraging and supportive environment for the employee to be innovative and take risks in performing their tasks and persist in the face of problems and quickly change the strategies that might not be effective.

**Miner Behaviour**

The miner behavior generally requires more organizational approval and has less individual control since they embark on inner opportunities required to cross the organizational lines. Miner behavior replicates the entrepreneurial leaders' action to accomplish leadership responsibilities creatively, apply innovative methods to resolve challenges, and consider all the organization's stakeholders when making decisions.

**Explorer Behaviour**

Explorer behavior is the entrepreneurial leader's action in discovering new opportunities for the organization's development, creative strategies for the organization's performance improvement, and envisioning an innovative future for the organization.

**Accelerator Behaviour**

The Accelerator Behaviour includes challenging employees for creative thinking, encouraging them to improve their task performances through innovative approaches, and creating a supportive environment to try new approaches. Accelerator behavior stimulates subordinates for creative thinking, inspiring them to expand their job performances through inventive approaches and generate an enabling environment to try new innovative approaches.

**Integrator Behaviour**

Integrator behavior reflects when the organization's vision is communicated to the employee, encouraging them to engage in entrepreneurial thinking and providing money for innovative ideas.

### B. *Open Innovation Model*

The role of innovation in company sustainability is significantly influential. Innovation can be a product, technology, administration, behavior, culture, and company process. In business competitiveness, innovation strengthens a company's market position and market share. The initiation and implementation of innovation are significantly related to the company leader who drives the strategy for the company to overcome the agile business competitiveness.

To explore the innovation process of IYKRA, the authors will identify the open innovation model of IYKRA by using the Holistic Model innovation (Cornell, 2012) and the IYKRA founder's influence on the management that lead the innovation sustainability in the company. In this research, the authors will focus on product and business model innovation only.

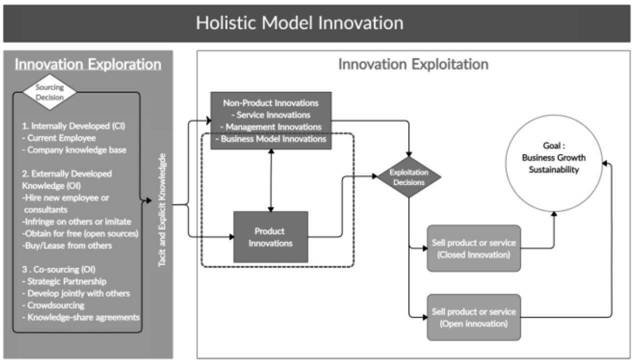


Fig. 1. Holistic open innovation model

IYKRA's business model is related to open innovation due to IYKRA's offer to scale up the Artificial Intelligence and Data Analytics talent to other parties. The business model of IYKRA itself is highly innovated technology and offers the solution to the current problem of the Indonesia business ecosystem. Therefore, in this study, the authors applied holistic open innovation to analyze the business model.

### C. *Managing Growth Model*

The growth management model focused on the observable activities of the organization, as well as on the entrepreneur, the role in the organization, and the specific changes that growth stimulates an entrepreneur role (Roberts, 2003). The authors apply the managing growing venture model to analyze the internal organization of IYKRA related to the founder's entrepreneurial leadership that led the business into open innovation model and the business growth strategy. The managing growth model consists of four elements that fit one another. Below are the details:

- **Vision and strategy**. The element is related to the entrepreneur's vision and the action strategy to pursue it.
- **Organization, structure, and process.** The element related to the broad strategic and operational requirements classification into specific individual tasks and jobs. These tasks should be structured and coordinated.
- **People**. The element related to the human resource requirement to fulfill the roles needed to do the work in terms of the organization's skills, background, and experience.
- **The entrepreneur.** As growth changes the nature of the organization, the entrepreneur's role change into a more managerial function. The entrepreneur should identify the role in the organization, the responsibilities delegation, and the required skills to execute the task successfully.

### *D. Ansoff Matrix*

To formulate the strategy recommendation for IYKRA business growth, the authors applied the Ansoff matrix as a tool to define the strategy. The Ansoff matrix identifies the implication of growing business through existing or new products and in existing or new markets. These growth options are affected by both internal and external influences and analysis.

## IV. RESULTS

### *A. Entrepreneurial Leadership Questionnaire*

The questionnaire survey participant consists of the founders and the employee (18 of 30 IYKRA employees). The letter "I" (critical) shows how important is the behavior or the role of IYKRA C-level management (founders) doing his job. The letter "F" (frequency) shows how often the job is done by the C-level management (founders) from an employee's point of view. The survey was conducted to find the gap between Importance and Frequency. The employee filed the survey only for the C-level on their division up-line. The lowest gap ratio is an indicator for representing the leadership style of IYKRA founders. The score will classify into three categories: High (H), Middle (M), and Low (L).

TABLE I
IYKRA FOUNDER 1 (CEO) ELQ RESULT

| Type of Entrepreneurial Leadership | | Score | Scale | GAP |
|---|---|---|---|---|
| General Entrepreurial Leadership | I | 39 | H | 12 |
| | F | 27 | M | |
| Explorer | I | 42 | H | 13 |
| | F | 29 | M | |
| Miner | I | 35 | H | 11 |
| | F | 25 | M | |
| Accelerator | I | 55 | H | 17 |
| | F | 38 | M | |
| Integrator | I | 70 | H | 23 |
| | F | 47 | M | |

Notes : I = Important F = Frequency
H = High M = Medium L = Low

The result data in the entrepreneurial leadership questionnaire for IYKRA founder 1 shows that the lowest gap ratio is on the miner style of leadership. It means that the IYKRA founder 1 applied the miner style leadership dominantly rather than other leadership styles. According to Thornberry, the miner leaders typically focused on the internal company while less closed to the marketplace focused. The miner leaders also focused on the value chain to create significant new value and often find new business opportunities by optimizing the asset. However, IYKRA founder 1 is responsible for leading the company as the CEO and focusing on marketing and B-2-C strategy.

TABLE II
IYKRA FOUNDER 2 (CBDO) ELQ RESULT

| Type of Entrepreneurial Leadership | | Score | Scale | GAP |
|---|---|---|---|---|
| General Entrepreurial Leadership | I | 36 | H | 10 |
| | F | 26 | M | |
| Explorer | I | 39 | H | 9 |
| | F | 30 | M | |
| Miner | I | 30 | H | 4 |
| | F | 26 | H | |
| Accelerator | I | 44 | H | 1 |
| | F | 43 | H | |
| Integrator | I | 56 | H | 5 |
| | F | 51 | M | |

Notes : I = Important F = Frequency
H = High M = Medium L = Low

The result data in the entrepreneurial leadership questionnaire for IYKRA founder 2 shows that the lowest gap ratio is on the accelerator style of leadership. It means that the IYKRA founder 2 applied the accelerators style leadership dominantly rather than other leadership styles. The accelerator leader has a goal to accelerate innovation in their particular area or department. Since founder 2 is responsible for business development, especially on Business-to-Business, finance, and general administration, one of the strategic focuses is to achieve business alignment strategy between internal business function, the IYKRA founder two focus is to the unit and business division.

TABLE III
IYKRA FOUNDER 3 (COO) ELQ RESULT

| Type of Entrepreneurial Leadership | | Score | Scale | GAP |
|---|---|---|---|---|
| General Entrepreurial Leadership | I | 36 | H | 13 |
| | F | 23 | M | |
| Explorer | I | 40 | H | 13 |
| | F | 27 | M | |
| Miner | I | 35 | H | 12 |
| | F | 23 | H | |
| Accelerator | I | 52 | H | 17 |
| | F | 35 | H | |
| Integrator | I | 67 | H | 24 |
| | F | 43 | M | |

Notes : I = Important F = Frequency
H = High M = Medium L = Low

The result data in the entrepreneurial leadership questionnaire for IYKRA founder 3 shows that the lowest gap is on the miner style of leadership. It means that the IYKRA founder 3 applied the miner style leadership dominantly rather than other leadership styles. Founder 3 focused on operational product (services) and internal operation related to product development and human resources. In the working environment, founder 3 has highly focused on managing the resources and effective work delegation. The founder believes that he should give the working framework, not the job-specific direction, as a leader. Therefore, the employee opens to discussion and is flexible to do the task.

### *B. Holistic Open Innovation Model*

IYKRA's business model is related to open innovation due to IYKRA's offer to scale up the Artificial Intelligence and Data Analytics talent to other parties. The business model of IYKRA itself is highly innovated technology, and the business offers the solution to the current problem of the Indonesia business ecosystem. Therefore, in this study, the authors applied open innovation to the business model analysis. The company's innovation started with formulating open business models that create and capture value by collaborating with outside partners. The open business models may happen from "outside-in" by exploiting external ideas within the company or from "inside-out" by providing external parties with ideas or assets lying idle (Chesbrough, 2006).

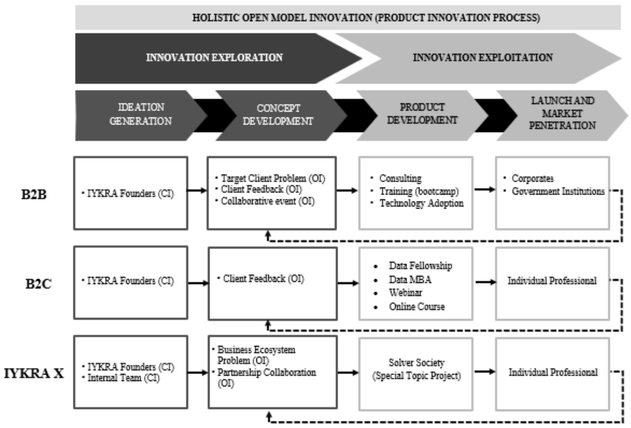


Fig. 2 IYKRA Product Open Innovation Model Summary
*All final decision on every product innovation process taken by C-level (founders)
CI : Closed Innovation OI : Open Innovation

To explore and analyze the open innovation model in the IYKRA product innovation process, the authors classified the innovation process stage into two-phase innovation on a holistic innovation model (Cornell, 2012). The innovation exploration phase (value creation) consists of idea generation and concept development process. The innovation exploitation phase (value capture) consists of product development and product launching stage. To explain the analysis in more detail, here is the open innovation process and the founder's involvement in every IYKRA segment market.

- **Business-to-Business Innovation Exploration Stage**

The IYKRA establishment arose from the founder's vision to build Indonesia's artificial intelligence and data ecosystem. The founders were active in the data science community and establish the data science Indonesia community. Departing from the founder's passion and vision support by market needs observation as concept development, the founders offer the data analytics consultation and training to the corporate as the initial target market segment. The founder acquired the project from one of the biggest banks in Indonesia and starts to provide consulting and data analytics capacity-building services. The continuous improvement for production conduct by the IYKRA team by relying on the client feedback and problem and collaborative event as the partnership strategy with the client.

- **Business-to-Business Innovation Exploitation Stage**

As the business-to-business segment increase in numbers of products and target market, IYKRA makes innovation on the B-2-B services by offer technology adoption for the client that does not know to build the technology infrastructure. Therefore, the IYKRA B-2-B service offers not only data-talent capacity building but also technology adoption. IYKRA involves data analytic consultancy for strategy formulation in government institutions and conducts strategic partnerships as brand impact strategies to create future economic value.

IYKRA held a collaborative event with the clients and the community to increase the market share and share awareness about big data analytics for the business ecosystem. This collaborative event is the brand impact strategy to strengthen the brand flags to the market. IYKRA observes the market needs and reactions to make innovations on the IYKRA products.

- **Business-to-Consumer Innovation exploration Stage**

In the early year company, IYKRA launched the Data Class for the public, consisting of several programs with the individual professional as the target market. The ideation of this Business-to-Consumer program arises from the IYKRA founder's company branding strategy to engage with the public. However, due to the resource team limitation, the programs are grouped into one brand flag (Data Class for Public) and perceive as a project, not a product. In 2020, with the increasing demand and capability resources, the Business-to-Consumer segment divided into several brand flags and product development through the concept development process.

- **Business-to-Consumer innovation exploitation stage**

The feedback from the IYKRA graduate community enhances IYKRA to develop a new product that takes less time for the participant to learn about data-skill. The webinar (TalksOn and HandsOn) and online course is the program for the target participant looking for short-course learning. Product development is also affected by the pandemic covid-19 that changes society's behavior to gain knowledge online in a flexible time. IYKRA conducts project collaboration with SMEs, Bursa Sajadah for Data MBA class batch V as the topic analysis.

The solver society program is a slicing program of two segments, B2B and B2C. This program takes participants from data class graduates and the community (individual professionals). This program is related to brand clarity for the B2B segment, both corporate and government institutions. The topic for this project is an issue in the ecosystem business. IYKRA publishes the project results on the media partner for public exposure and a portfolio of participants and IYKRA.

Following the IYKRA drive to guide value, IYKRA takes two steps ahead of action and offers solutions that match the characteristics of the client problems in B2B (government and corporate). IYKRA develop the business model open innovation scheme through the solver society program to integrate the business value proposition between the B-2-B segment and the B-2-C segment.

## V. DISCUSSION

### A. *Entrepreneurial Leadership Analysis*

According to the Thornberry Entrepreneurial Leadership Models questionnaire, two from three founders meet the criteria following the founder's responsibilities in a top-level management function. Founder 1 meets the criteria of miner leader. However, The CEO should act as the company integrator that comprehensively focused on the market and orientation and organizational function. The difference between the founder and employee perspective comes from the unoptimized function of the founder 1 responsibility as a CEO. The marketing and product function should be delegated to the other because it relates to the specific operational function. The CEO should act as the company integrator focused on the market and orientation and organizational function comprehensively.

As the growth business strategy, the IYKRA founder 1 initiates the action to strengthen the IYKRA brand flag through business model innovation. Also, IYKRA founder 1 was the initiator of IYKRA value as the core principles for IYKRA business and organization. Thornberry presumes the CEO role mostly shows the integrator leader behavior and focuses on the entire organization. The integrator leader's goals are to create an entrepreneurial strategy for the business and develop people, structures, processes, and culture that support the strategy. The founder 1 is highly focused on the marketplace yet also create the organization architecture.

The questionnaire result shows the IYKRA founder one perspective about the importance of leadership behavior leadership under the IYKRA 1 founder department function is highly different from the employee perspective about the frequency of the leader apply the integrator behavior leadership. The IYKRA founder 1 focused on the market and enhanced the brand's impact on business growth sustainability while also focused on the organizational direction by building company culture and value.

The leadership style shows by IYKRA founder 2 meets the criteria of accelerator leadership style. According to Thornberry, the accelerator leader tends to challenge employees for creative thinking, encourage them to improve their task performances through innovative approaches and create a supportive environment to try new approaches. In addition, founder 2 pushes the employees to engage in the business process, not only for economic value creation but also for creating human values and behaviors in line with the accelerator leadership style.

Founder 3 meets the criteria of miner leader and is focused on the company's operation. In the working environment, founder 3 has highly focused on managing the resources and effective work delegation. The founder believes that he should give the working framework, not the job-specific direction, as a leader. Therefore, the employee opens to discussion and is flexible to do the task.

The entrepreneurial leadership analysis result showed that to make business model innovation, the founders focused on creating strategic partnerships with the client by holding several event collaborations and projects and engaged with society to share awareness about data analytics. This collaboration strategy is drive

IYKRA to generate ideation and concept development for product development through open innovation approach.

## B. Open Innovation Model Analysis

The open innovation model assumes the internal knowledge and ideas can bring to the market through external channels outside the current firm business to generate additional value (Chesbrough et al., 2006). The movement of knowledge and ideas (outside-in and inside-out) present two main general organizational problems for the company, coordination and incentive problems. It is related to innovation as technology exploration to capture the external knowledge as a resource to enhance technology development and technology exploitation as the activities leverage technological capabilities outside the company boundaries (Rothaermel, 2004; Lichtenthaler, 2008).

The authors conduct the interviews and questionnaire survey related to the innovation process, especially for the IYKRA product innovation process. According to Rothaermel (2004) and Lichtenthaler (2008), the main problem of an organization with open innovation model is the coordination and incentive problems. Here is the detailed explanation of the authors' analysis related to the critical challenges of IYRKA as the open-innovation model company.

- **Coordination problem**

The product development needs coordination between related the company business function. In the IYKRA business process, product development depends on the marketing and business development team to in line with the market needs. It also related to the operational and product team and the c-levels business ideation, leadership, and entrepreneurial decision-making, which had significant themes in strategic decisions (Patria et al., 2019).

Coordination is the interrelation between activities in the company and the searching and selecting ideas and knowledge to carry out the innovation activities. The IYKRA business goals come up from the C-level perspective and also with the strategy formulation. The IYKRA strategy strengthens the brand impact through strategic partnership and collaboration activities to gain market share and capture future economic value creation. Meanwhile, the IYKRA internal team (employee) presume that the set business goals are not comparable with internal team capability and perceive that the company needs balancing to serve the customer (partner) with serving the employee. Therefore, the ideas and knowledge carrying to the innovation cannot be optimal when there is a lack of coordination between the idea generator and product development team as the idea executor.

One of the operational team members implied, *"I think the company has a more focused on the business-to-business client, and it takes much time because we should follow and adjust with the client needs. So the company focus on business-to-consumer product is not optimum"*. To explore the coordination problem in more detail, the authors analyze the three perspectives: outside valuable idea exploration, communication, and internal capability.

- **Outside valuable idea exploration**

The external sources of ideas and knowledge exploration resulted in the searching cost to enhance the product innovation process. IYKRA's collaborative and partnership strategy creates good networking, current, and future market needs, increases brand awareness, and increases the market share. It will drive the future economic value creation for IYKRA though it will become costly. IYKRA perceives that strengthening the brand's flag through partnership and collaboration will convert the brand impact into profit impact.

- **Communication**

Communication is one crucial aspect of the organization because it relates to sending and receiving the message among interrelated individual goals and company goals. The company goals and strategy are the critical aspects that should be delivered to the employee to adjust the individual goals to align with the company goals on their works. As the authors mention on the coordination problem, the lack of coordination caused the miss-perception between the C-level and internal teams.

The internal team perceives what they do is about the company focused on serving the client to generate revenue and not accept the internal team ideation. At the same time, the C-level take action due to the innovation ideation from external parties for product development. Therefore, the lack of communication about the C-level goals and the internal team is the challenge for the company to remain to generate idea and concept development with involvement from external company knowledge and ideation.

- **Internal capability**

IYKRA internal team face the problems that the capability of IYKRA resource is not always capable of overcoming business ideation. The internal team perceives the company to impose the business goals, which are not supported by internal capability and system. One of the product development team members implied, *"The business goals should consider if it is possible to be approach at the moment. It would be nice if there is the training to upgrade employee skills with the management team involvement."*

The IYKRA C-level has a focused strategy for 2021 on people management and strengthens the company brand flags. Founder 2 implied, *"IYKRA have a target to increase the employee benefit and capability. We budgeted for the quarterly bonuses and training for the internal team to upgrade skills. We also have a strategy to focus on our home-based market or our expertise sector and achieve the targeted the doubled revenue and employee growth"*.

- **Incentive problem (internal idea on the company)**

The open innovation model can leave the company's knowledge and ideas inside the company without future development and not taking to the market due to the other ideas receiving more attention for profit creation (Chesbrough, 2003). As the authors stated on the coordination problem, the employee perceives their ideation and innovation.

One of the product development team members implied, *"It is better to accept the idea for innovation from the responsible team as the planner and direct implementation party. The employee is the investment to run the business".* The employee can develop the internal ideas and knowledge outside the company to create commercialization, and the company fails to take advantage of their ideas and knowledge (Rodriguez, Lorenzo. 2011).

*C. Managing Growth Model Analysis*

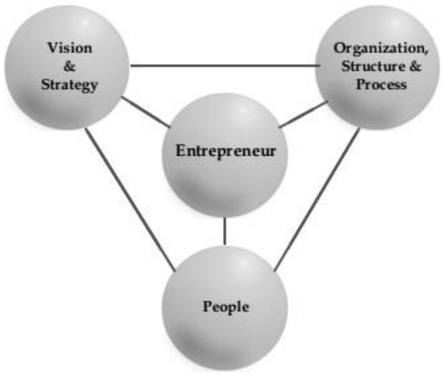


Fig. 3. Managing Growth Model (Robert, 2003)

- **Vision and strategy**

The IYKRA founders and the management teams have to identify the target market and the results of the delivering value of the customer to measure the right market. Also, the critical operational tasks and financing resources to know the company's capability to grow (Roberts, 2003). Finally, the IYKRA founders have to formulate a communication system to share the company's purpose and vision to the employee. To make continuous improvement on the vision communication flow, IYKRA should formulate the short-term and long-term strategic planning framework and open discussion about the vision and strategy execution in the annual town hall meeting.

- **Organization, Structured and Process**

The company growth strategy and the operational requirement formulation drive the company to organize growth (Roberts, 2003). The IYKRA value can influence individuals' behavior and performance in all organization layers and drive superior performance. According to the authors' analysis of the data collection result, IYKRA faces internal problems related to the structure and process in the organization.

The one of product development team under founder one division function implied, *"I will be grateful if in the future not to push the idea if that comes without the data or valid purpose. Sometimes we explain it is not possible, but the idea pushed to be done, and it usually ended up being a waste because it did not come with proper research".* To overcome these problems and challenges, IYKRA needs to improve the organizational structure on the functional-based and formulate the innovation flow process to avoid different perspectives between the level management.

- **People**

Early-stage company growth leads the organizational transformation that needs a more narrowly work structure, formalized and standardized tasks, it necessary to find the right people to fill these roles. The founders need to address fundamental needs related to the specific knowledge, skills, experience, and aptitudes for job positions. The IYKRA growth faces several problems related to the number and capability of the human resource. As the authors' analysis in the holistic innovation model section, IYKRA not divided the services into several brand flags in the early two years due to human resource limitation numbers.

In 2020, IYKRA divided the services into several brands and hiring new employees. However, the increase in product development and service demand from the market has no balanced internal resource capability. One of the product development employees implied, *“Sometimes the business goals are imposed and not matched with the ability of existing resources or systems, so it is necessary to consider more wisely whether that goal is possible to approach at the moment. Therefore, it is better to conduct the training related to the product development and involve the employee and management as participant”.*

To overcome the people management problem and execute the strategy, IYKRA needs to conduct regular training and framework related to the resource and business target requirement, employee benefit and promotion, and performance management indicator as to the two-way evaluation.

- **The entrepreneur**

According to the authors' entrepreneurial leadership analysis section, the founders' entrepreneurial leadership has a dominant impact on the IYKRA vision, strategy, value, and management style in the IYKRA organization. The increasing volume of managerial work impacts the founder's capacity to do the work. The deep focus and involvement in the early stages can become barriers to developing the broader managerial perspective to succeed. The IYKRA founders must identify the existing management model, the required people, organizational structure and process tools, and the founder's feedback performance tools.

*D. Ansoff Matrix Analysis*

To formulate the strategy recommendation for IYKRA business growth, the authors applied the Ansoff matrix as a tool to define the strategy based on internal analysis results.

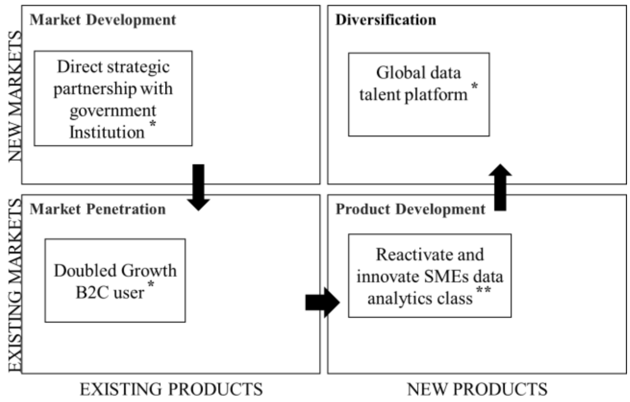


Fig.4. Ansoff Matrix Analysis
*Strategy development based on the company existing goals
**The authors recommendation

- **Market Development Strategy**

In 2020, IYKRA started to create strategic partnership framing with a government institution. The partnership is related to the consulting and data talent building services and the framing for IYKRA branding for a long-term partnership. IYKRA needs to have a portfolio to gain the project from the government institution. As the brand impact strategy, IYKRA conducts indirect affiliation through held collaboration events with the government institutions and project collaboration about a specific topic through the solver society program.

- **Market Penetration Strategy**

IYKRA can penetrate the student segment to enhance the usage of the Business-to-Consumer Product. The tech-data capability is the critical skill for talent in the digital business ecosystem. Collaboration with external parties is one of the strategies focused on by the IYKRA leader. Therefore, IYKRA can create a strategic partnership with the academy institutions by offer out-class such as the Bootcamp data analytic program for the student. One of IYKRA's values, Future Ready, can be the brand awareness strategy that aligns with the academic purpose of preparing and graduates the future-ready talent in the business ecosystem. To increase the retention rate of users, IYKRA can formulate the loyalty scheme by providing access to other IYKRA programs with attractive prices for the students (academic institution) programs.

To create unique value, the student's participant can get opportunities to hire by an IYKRA partner, and also it can be an internship program. One of IYKRA's strategies to convert brand impact to profit impact was the data fellowship program (free scholarship) to provide top talent for the IYKRA project for the B-2-B segment. However, this strategic partnership with academic institution strategy will create a new revenue stream while achieving the IYKRA goals to provide top data talent for clients. In addition, the new revenue stream will lead IYKRA to gain more market share in the data analytics industry.

- **Product Development Strategy**

One of the main types of open innovation strategies for SMEs is a knowledge-intensive collaboration (Poot et al., 2009). IYKRA can play a role as the technology aggregator in Indonesia's digital business ecosystem by transferring knowledge-intensive to SMEs and supporting technology adoption. The difference between SMEs and big companies is the capability to make sustainability innovations through the Research and Development process due to lack of resources (financial and human resources capability).

Technology innovation needs high-cost investment, and it is not the one SMEs main focus. However, in this agile business ecosystem, the advancement of technology development will attract SMEs to be more competitive through digitalization. These challenges become the Indonesian government's focus to scale up the SMEs business by digitalization.

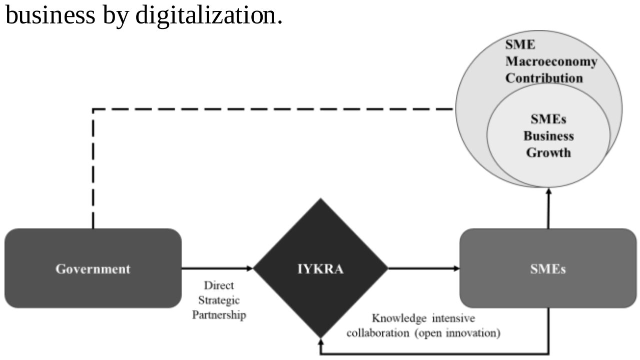


Fig. 5. IYKRA Government Strategic Partnership – SMEs Program Scheme

- **Diversification Strategy**

Based on the authors' analysis of Business-to-Business product innovation in the exploitation stage, IYKRA conducted a collaborative event with a German company to penetrate the global AI community. IYKRA has to formulate strategic planning regarding this global vision. To achieve the vision globally, IYKRA needs long-term strategic planning to identify the capability of both internal and external organizations to take the proper strategy execution and direction.

The collaboration and partnership with the partner in the other country will help IYKRA open idea generation and concept development to launch the global services. Also, the founders' leadership takes a critical role in this long-term vision due to the IYKRA founders actively bringing the brand globally.

## VI. CONCLUSION

According to the Thornberry Entrepreneurial Leadership Models questionnaire, two from three founders meet the criteria following the founder's responsibilities in a top-level management function. Founder 1 meets the criteria of miner leader. However, is not fit with founder 1 as the IYKRA CEO. The CEO of

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the company tends to meet the criteria as the integrator leader. The difference between the founder and employee perspective comes from the inappropriate function of the founder 1 responsibility as a CEO. The marketing and product function should be delegated to the other because it relates to the specific operational function. The CEO should act as the company integrator that comprehensively focused on the market and orientation and organizational function.

Founder 2, as the chief of business development, meets the criteria of accelerator leader. The accelerator leader tends to challenge employees for creative thinking, encourage them to improve their task performances through innovative approaches and create a supportive environment to try new approaches. Founder 2 pushes the employees to engage in the business process, not only for economic value creation but also for creating human values and behaviors in line with the accelerator leadership style.

Founder 3 meets the criteria of miner leader. Founder 3 focused on operational product (services) and internal operation related to product development and human resources. In the working environment, founder 3 has highly focused on managing the resources and effective work delegation. The founder believes that he should give the working framework, not the job-specific direction, as a leader. Therefore, the employee opens to discussion and is flexible to do the task.

The entrepreneurial leadership analysis result showed that to make business model innovation, the founders focused on creating strategic partnerships with the client by holding several event collaborations and projects and engaged with society to share awareness about data analytics. This collaboration strategy is drive IYKRA to generate ideation and concept development for product development through open innovation approach. During pandemic covid-19, the founders decide to keep and increase the employee number. This action is risky due to the company revenue was decreasing.

The founders also continuously innovate the business model, for example, the data fellowship program like the free program for the individual professional and graduate the top talent to be placed and offered to the B-2-B client project. The success of the data fellowship business model will enhance the value of IYKRA services and profit impact to the company. However, this model is still in the development process. As the IYKRA value created by the founder, true-hearted, IYKRA concerns customer feedback and makes that input to develop the program. In the B-2-C segment, the IYKRA product innovation process is affected by the graduate feedback and needs to have a data analytics program inflexible and short-time. Therefore, IYKRA launched the webinar (HandsOn and TalksOn) program and online course to fulfil the B-2-C market needs and increase the number of service users.

Coordination, communication, outside valuable idea exploration, internal capability, and incentive problem is the main challenge of internal IYKRA organization to grow the business. The internal IYKRA faces challenges in the product ideation and concept development process based on the authors' interview and questionnaire analysis. The internal team perspective differs from the IYKRA leader due to the product development process.

The internal employee presumes that the internal team ideation is not the concern of the IYKRA leader. However, the IYKRA leader strategy focused on the open innovation process through collaboration and partnership strategy as the innovation exploration process. The employee also presumes that sometimes the internal capability cannot overcome the leader's expectations to develop the product as the market needs.

IYKRA's open innovation model impacts the digitalization of other companies by transferring and sharing innovation in capacity and technology building. Digital technology 4.0 is the one of government focus to scale up the Indonesia business industry. This business model can put IYKRA as the technology aggregator in the business ecosystem. IYKRA's strategic partnership with the government institution brings up the networking that can lead the future economic value creation and increase the IYKRA market share. IYKRA has an opportunity to take a role as a government strategic partner as the vocation educational platform.

Based on the analysis of the founder entrepreneurial leadership and open innovation process (holistic open innovation model), the authors proposed a recommendation strategy for IYKRA to optimize the entrepreneurial leadership and open innovation model approach to achieve sustainable business growth. Here is the summary of the proposed recommendation strategy:

TABLE IV
STRATEGY RECOMMENDATION SUMMARY

| Strategy Recommendation | |
|---|---|
| **Organization** | Functional structure organization improvement*<br>Innovation flow process framework formulation**<br>Short-term and Long-term strategic planning framework formulation* |
| **People** | Employee training (data/tech related, operational capability)*<br>Self-competencies training (Leadership, Teamwork, Creative thinking)**<br>Resource and business target framework formulation**<br>Employee benefit and promotion framework formulation**<br>Performance management indicator framework formulation** |
| **Market Development-Direct strategic partnership with government institutions** | Direct partnership in Government industry 4.0 program* |
| **Business Strategy**<br>**Market Penetration-Doubled growth B2C user and strengthen B2B brand flag** | Strategic Partnership with academic institutions*<br>Data talent pool** |
| **Product Development-Reactivate and innovate SMEs data analytics program** | SMEs data analytics class*<br>SMEs digitalization program (Government direct partnership)** |
| **Diversification-Global data talent program** | Diversification-Global data talent program<br>Data MBA for international participant*<br>Solver Society for International topic and collaboration project*<br>IYKRA graduate International certification program** |

*Strategy development based on the company existing goals
**The authors recommendation

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**Recommendation for future research.**

This study advanced the body of knowledge on the company's specific entrepreneurial leadership behaviors and practices in the growth phase. The leadership of the IYKRA founders influences the open innovation model applied by the company. This study involves only 21 participants as the respondent on the qualitative and quantitative research analysis. In this study, the financial data analysis is limited. Therefore, future research is needed to examine the influence of entrepreneurial leadership of the founders in the company and the open innovation model to the company growth from the financial and numbers perspective.

The open innovation model is related to the external party, the other business enterprise, government, and society. IYKRA provides data talent and big data implementation services. The impact of open innovation related to the data talent and big data implementation to the business ecosystem should be measured for future research.

The authors realize that the completion of this research would not be possible without help from others. Therefore, the authors would like to express gratitude to people who always support the authors of this research and hope the report can give new insight for the reader.

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