

Design Leadership and Sustainable Leadership in Sustainable Practice of an Indonesian Architectural Design Firm, Han Awal and Partners

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Abstract

Purpose: This research will explore design leadership and sustainability leadership towards sustainability best practice, especially the role of leaders in managing a firm whose core activities are based on design and whose resources are based on people creativity.

Design/methodology/approach: This research will use a qualitative method with a combination of narrative and content analysis of the results of in-dept interviews with principal architects, social media content, and the autobiography of Han Awal and Partners (HAP). Triangulation will be carried out using the results of in-depth interviews with HAP staff, HAP observer architects, media coverage and Indonesian architectural history books about HAP, United Nation 17 Sustainable Development Goals (SDG). **Findings:** The implementation of design leadership and sustainability leadership at HAP is comprehensive and consistent on both the design project side and the firm management side. Design leadership and sustainability leadership at HAP have a positive relationship that mutually elaborates both on performance on design projects and on firm management that contributes to the SDGs.

Research limitations/implications: In future research, it can be explored for multiple cases of several design firms both inside and outside Indonesia, using a more comprehensive comparative study of results. **Practical implications:** The managerial implications of this research will provide inspiration for how Indonesian Design Leaders contribute to

sustainability impact in the context of industrial conditions in Indonesia. **Originality/value:** The managerial implications of this research will provide inspiration for how Indonesian Design Leaders contribute to sustainability impact in the context of industrial conditions in Indonesia. In future research, it can be explored for multiple cases of several design firms both inside and outside Indonesia, using a more comprehensive comparative study of results.

Keywords: Design Leadership, Sustainability Leadership, Indonesian, Architectural Design Firm Sustainable Practice

Introduction

This research aims to study the role of design leaders in mobilizing architectural firms to optimally achieve SDGs (Sustainable Development Goals) in goals related to their industry. This research was carried out in a related industry, namely the creative industry in Indonesia, the architecture sub-sector (Kemenparekraf, 2021). This sub-sector is important because of the large ESG impact that arises from architectural works from the assignment process, design to realization. An architectural firm is characterized by leadership, and the role of a leader in this industry is important to encourage innovation that applies sustainability principles to achieve the SDGs. A good combination of design leadership and sustainable design practice in the architecture subsector as a whole to produce ESG (Environment Social Governance) impact is an urgent need to accelerate achieving the SDGs.

The empirical problem of this research is that there is a large gap between the opportunity to contribute to the SDGs compared to the realization of the firm's strategy and operations. The opportunity to contribute to achieving the SDGs in this industry occurs because of the large ESG risks that arise both from operations and from the firm's work. The magnitude of this risk is not balanced by sustainable design practices and sustainable design results. From an environmental risk perspective, architectural firms, including those in the creative industry and construction services, contribute 40% of carbon emissions and absorb 34% of world energy. Under these conditions, the opportunity to contribute to the SDGs is large, but not all firms are committed to producing GB (green buildings), the number of new buildings certified as GB is less than 20% in the UK and America (Fischhoff, 2020). Only 33% of architects feel they have to contribute to the SDGs, while from the client side, only 22% are interested in GB, and 59% of architects feel they are not supported by developers (Deltek, 2020). In fact, when a building is designed and built to GB standards, there are 11 Goals that are affected, both from three ESG sides (Horváthová et al., 2020). In terms of social and governance risks, there are many global issues related to work safety and comfort, recruitment, work life balance, salary and recruitment systems that are not friendly to women, but these risks have not been balanced with the good governance of most architectural firms in the world (Nicholson, 2020a; Williams & Korn, 2022). Overall positive sentiment from investors and stakeholders towards firms that are committed to contributing to the SDGs is very high, 98% of investors see this in their investment decisions, 75% of prospective employees see this in their decision to enter a firm, but only around 33% of firms show their contribution to the SDGs (Roberts, 2021).

This research will examine design leadership towards sustainability, especially the role of leaders in managing a firm whose core activities are based on design and whose resources are based on people creativity. The role of the design leader in architectural firms is very

important in formulating strategies and ensuring the practice moves towards sustainability while maintaining the freedom to innovate and be financially healthy.

There is an urgency for an architectural firm to contribute to creating a sustainable impact. Sustainable impact consists of 3 types of impact, environmental impact, societal impact and governance impact. Architecture firms have the opportunity to produce these three impacts both through design solutions and through firm management and operations. If the impact types are broken down based on SDG, there are a total of 11 impacts that can be achieved by a firm. Strategies and decisions to achieve a firm's sustainability impact are determined by the firm leader. Of the several types of leadership, design leadership was chosen because it best suits the context of an architectural design firm where the nature of this firm is to produce design solutions. This research will target 2 context gaps at once, namely type of firm and country, Indonesian architectural design firm.

This research also targets the knowledge gap between design leadership and sustainability impact decisions. HAP was chosen because this firm is leading in carrying out practices that support overall sustainability, not only in environmental terms, but also in social and governance aspects compared to other large firms (Antar et al., 2017). Currently, HAP is involved in many large-scale government projects that carry the concept of overall sustainability from an ESG perspective which involves collaboration with non-profit organizations and communities based on preserving local culture and traditions, such as the Uma Nusantara Foundation (Suhandi et al., 2018) in several remote area development projects in Eastern Indonesia.

Overall, the findings from this research are that HAP not only produces architectural works that contribute to the SDGs in the context of green building, but also extends more widely to the social SDGs, apart from that, the practice at the HAP firm also implements the SDGs in its leadership and operations. HAP's design leader aligns 3 challenges, namely managing creative people - directing toward sustainability - maintaining the business goal. In terms of architectural work, the role of design leaders who encourage work with projects related to SDG, namely establishing design foundations, empowering the design time and elevating to design excellence. Meanwhile, in terms of firm governance, the HAP leader synchronizes designers' and organization processes, the internal process of ownership by building trust between the principal architect and the team, bringing the results of the process to life by building intense collaboration with the government-local community-organization non-profit cultural preservation. This collaboration brings expanded impact, not only limited to the environment, but also social and governance impacts. It opens the way, gathers support and accelerates the realization of contributions to several SDG goals.

In conclusion, there is an important role for design leadership in an architectural firm in determining the direction towards sustainability. Considering the large risks posed by a development project, it is important for architectural firm design leaders to commit to producing ESG impact by consistently integrating sustainability principles into their vision, mission, operations and design results. External collaboration is important to support business processes.

Literature Review

For this research, a review of three groups of literature will be carried out, namely about design leadership, sustainability leadership and architectural design firm sustainable practice so that we can better understand the context of this research. There has been a lot of research on each of these topics, but rarely combines discussions from the fields of design leadership and sustainability specifically in firm architecture with a focus on the role of design leaders to produce sustainable practice in terms of firm governance, especially in Indonesia. This is because previous research was dominated by research on architects as a profession, not as a firm.

Design Leadership

Currently, all organizations are required to always innovate regardless of the type of industry or sector. Organizations that rely heavily on innovation as their spearhead for competitiveness in the market are often referred to as design led organizations (Brown, 2009; Christian et al., 2008; Kelley & Kelley, 2013; Kembaren et al., 2014; lockwood, 2009). In an organization like this, design leadership is really needed as a concept for the overall determination of vision, mission, strategy, business model and daily management. (Best, 2006) In general, leadership design can be discussed in terms of definition, role, leader character, skills, culture, basic thinking and organizational performance.

By definition of the concept, design leadership can be in the form of direction and strategy for an organization (Brown, 2009; De Mozota & Wolff, 2019). Conceptual harmony between strategic and daily operations in design projects must be sought, so that a unified design led organization is achieved. Organizational culture must be directed towards prioritizing creativity in solving user or market problems (lockwood, 2009)

Design leadership requires a design leader. Previous research discussed that the role of the design leader is different from that of the design manager, because the position of the design leader is at the organizational level, not at the design project level ((Best, 2006; Christian et al., 2008) Several studies have mapped the behavior and indicators of a design leader who can improve the innovation performance of his or her organization. Because the job of a design leader must also be to be able to build a climate that is conducive to the creativity process and for creative people (Kelley & Kelley, 2013; M. , D. Mumford & Gibson, 2011)

The character of a design led organization and the creative people within it is unique and requires special handling and special leadership to keep the spirit of innovation from fading from the organization (Hsieh et al., 2021; M. D. Mumford, 2000). Several studies discuss the need for flexible and dynamic leadership skills and styles because the competitive nature of innovation is difficult to predict and calculate accurately. Apart from that, the humanist factor demands flexibility and empathy (Brown, 2009; Gemser, Giulia, et al., 2023). Design leaders have many similarities with other leaders but are distinguished by the mindset of a designer, which is often referred to as design thinking, and people who apply it are referred to as design thinkers (Best, 2006; Hsieh et al., 2021). This mindset leads someone to initiate and take a decision to take these steps; explore inspiration and empathy, define user problems, formulate many ideas and prototypes repeatedly, carry out testing repeatedly until reaching a solution that is ready to be implemented, and look for an implementation path that is

technologically feasible, economically viable and has the potential for high desirability from the market (Boeske & Murray, 2022a)

On the topic of design leadership, there are still many research areas that have not been touched because design leadership is a multidisciplinary field.

Sustainability Leadership

Sustainability leadership is related to sustainable development, in line with the increasing number of environmental problems such as climate change and social problems throughout the world such as increasing poverty. Sustainability leadership. The concept of sustainability leadership is an organization or persona that takes responsibility for acting in response to sustainable challenges, becoming an initiator and influencing other people to contribute. (Boeske & Murray, 2022b). Sustainability leadership also means making the sustainability concept the heart of the organization so that all components in the organization aim at the same thing. This is similar to design leadership (Waqas et al., 2022)

Several previous studies focus on sustainability leadership (Iqbal et al., 2020; Leal Filho et al., 2020; Martins et al., 2019; Suriyankietkaew et al., 2022) . Research area is dominated by strategies and obstacles in producing sustainable designs (Dokter et al., 2021; Hindarto et al., 2021; Li et al., 2020; Olawumi & Chan, 2020) To enable organizations to implement sustainability leadership , a sustainable leader is needed. Like the theory about leaders, sustainable leaders are also discussed in terms of attributes, values, skills and character (Green & McCann, 2011). Organizations that implement sustainability leadership get benefits in the form of sustainable operations so that they become more adaptive and stronger.

Discussions of sustainability leadership in architectural design firms have so far mostly discussed its application to building design, but rarely discussed aspects of firm management.

Architecture Design Firm Sustainable Practice

Previous research on sustainable practice in architectural design firms or other creative industry services, mostly discussed its application to production processes and the use of environmentally friendly materials, rather than discussing the management side of the firm. Even though there are 3 focuses of SDG, Environment, Social and Governance (ESG).

The application of sustainability leadership that is most closely related to architectural firms is the application of green building work, but in reality, even though awareness already exists, not all firms implement it for various reasons, such as client budgets and limited client knowledge. (Shurrab et al., 2019). The refusal to work in the field of green building was triggered by the longer construction duration (Chegut et al., 2019; Prieto & Prieto, 2022)

On the managerial side, architectural firms have several high impact risks related to the SDGs. Namely SDGs related to work life balance, gender equity and inclusivity ((Gohel, 2021; Nicholson, 2020b) SDGs regarding work life balance where in Indonesia architects normalize excessive working hours.

In terms of sustainable governance, architectural design firms also often experience problems with architects' lack of awareness regarding their business management. This is in accordance

with research which states that not all creative industry company architectural design firms are design led organizations, because they only focus on design project operations, so that overall business management does not have the spirit of innovation, sustainability and experiences chaotic coordination on the managerial side (Cramer & Simpson, 2004; Granet, 2021; Holston, 2011; Kembaren et al., 2014)

Research Hypotheses



Figure 1: Conceptual Framework

Integration between 2 kinds of powerful and contemporary leadership, design leadership and sustainability leadership will bring good impact into the organization and sustainable development goals achievement.

Method

This research will use a qualitative method with a combination of narrative and content analysis of the results of in-dept interviews with principal architects, social media content, and HAP's autobiography. Triangulation will be carried out with the results of in-depth interviews with HAP staff, HAP observer architects, media coverage and Indonesian architectural history books about HAP, United Nation 17 Sustainable Development Goals. Content analysis is a research strategy that systematically observes the content of various documents, both digital and non-digital documents (Sekaran & Bougie, 2016) Content analysis is not only useful for mapping keywords and categorizing interview results, but also useful for triangulation ((Karyotakis & Antonopoulos, 2021) The leadership and progress towards sustainability of the work and performance of the HAP firm is well documented in biographies of architects and firms, social media, media coverage and books on the development of the history of Indonesian architecture, this is because the HAP firm has been a respected firm in Indonesia since the beginning of the Indonesian architects association. founded in 1959 (Akmal, 2002, 2013; Indonesia, 2012; Kusno, 2013; Nugroho, 2018; Powell, 2012; Suryadinata,

2012). Interview recordings and text content were analyzed using coding from design leadership and practice and sustainability leadership and practice. Qualitative open questions for in-depth interviews were also developed from the same code, but used terms understood by the interviewee. For interview questions, Savin-Baden and Van Niekerk in Lockwood, used 4 principles, namely (1) Open ended questions, (2) Elicit Stories, (3) Avoid why questions, (4) Follow up questions using respondents' ordering and phrasing (2007) are used (lockwood, 2009)

Code for analyzing design leadership (DL) practice:

DL shows flexibility in leadership behavior in these 5 paradoxes (Gemser, Giulia, et al., 2023)) transformative-affirmative, directive-participative, proactive-responsive, intuitive-systematic, holistic-specific

DL does this: Envisioning the future, Manifesting strategic intent, Directing design investment, Managing corporate reputation, Nurturing an environment for innovation Training for design leadership. ((Gemser, Calabretta, et al., 2023))

DL strives for an innovative-oriented culture, learning culture, adhocracy culture, clan culture, hierarchical culture, and market/rational culture

DL shows leadership on both the design project side and the business management side

DL shows behavior as a design thinker (Hsieh et al., 2021) in managing design projects, team work and business management

DL exhibits these 7 qualities; Listen and look, emotional bonding, awareness to root of problem, doing, empowerment, responsibility, synchronicity (Hsieh et al., 2021)

The code for analyzing sustainability leadership (SL) practice was developed from the leadership model for a green economy by (Krames, 2003) as quoted in (Green & McCann, 2011)) and from mapping SDG contributions to design work and firm performance including: SL explains values

SL provides examples with actions

SL has a noble vision for the future

SL gathers and invites other people to aspire to the same vision

SL looks for opportunities to always innovate

SL encourages experimentation and courage and emphasizes learning from experience

SL facilitates collaboration and builds internal and external trust

SL strengthens others by developing independence and skills

SL appreciates the contributions of others

SL facilitates the presence of a community spirit

Both the work of the firm and the performance of the firm's management contribute to several SDGs.

Interviews were conducted with design leader Yori Antar, project architect Reginald Agussalim, and with Jusniati Suganda from the Tirta Utomo Foundation (the largest donor for cultural and design preservation projects for local residents in the interior of Indonesia. After coding, triangulation was carried out between the results per interviewee, and with digital and non-digital content.

HAP was chosen because this firm is leading in carrying out practices that support overall sustainability, not only in environmental terms, but also in social and governance aspects compared to other large firms (Antar et al., 2017) Currently, HAP is involved in many large-

scale government projects that carry the concept of overall sustainability from an ESG perspective which involves collaboration with non-profit organizations and communities based on preserving local culture and traditions, such as the Uma Nusantara Foundation (Suhandi et al., 2018) in several remote area development projects in Eastern Indonesia.

The current director and design leader is Gregorius Antar, usually called Yori Antar (YA). Since graduating from architectural education, he was immediately active in forming the Young Indonesian Architects organization, which also became the title of their design compilation book (Akmal, 2002). In 2008, the Rumah Asuh Foundation was founded to save and preserve traditional villages in Indonesia which are threatened with extinction through joint rebuilding using bottom up methods, working together with the community. National and international awards including from UNESCO for Cultural Heritage Conservation were won between 1996 and 2024. Currently the firm accepts 4 types of projects, namely government projects, commercial and residential private projects, institutional projects and pro-bono projects for the preservation of traditional houses and their traditions.

Findings

Overall, the findings from this research are that HAP not only produces architectural works that contribute to the SDGs in the context of green building, but also extends more widely to the social SDGs, apart from that, the practice at the HAP firm also implements the SDGs in its leadership and operations. HAP's design leader aligns 3 challenges, namely managing creative people - directing toward sustainability - maintaining the business goal. In terms of architectural work, the role of design leaders who encourage work with projects related to SDG, namely establishing design foundations, empowering the design time and elevating to design excellence. Meanwhile, in terms of firm governance, the HAP leader synchronizes designers' and organization processes, the internal process of ownership by building trust between the principal architect and the team, bringing the results of the process to life by building intense collaboration with the government-local community-organization non-profit cultural preservation. This collaboration brings expanded impact, not only limited to the environment, but also social and governance impacts. It opens the way, gathers support and accelerates the realization of contributions to several SDG goals. After conducting qualitative triangulation, using words that have the same meaning in Indonesian, no differences were found between sources and sources, between sources and digital and non-digital content. An interesting fact from the interview results is that YA doesn't know what SDG is, YA brought his firm towards sustainability based only on the architect's professional code of ethics, obedience as a citizen and his love for Indonesia. Meanwhile, the leadership practice design applied at the firm is also rooted in its high empathy for all groups of society.

Table 1

The following is the design leader practice found in HAP

Design Leadership Code	Design Leadership Practice in HAP
DL shows flexibility in leadership behavior in these 5 paradoxes (Gemser, Giulia, et al., 2023) transformative-affirmative, directive-participative, proactive-responsive, intuitive-systematic, holistic-specific	YA takes a different approach to each problem based on the condition of the problem and the character of the client and subordinates.
DL carries out Envisioning the future, Manifesting strategic intent, Directing design investment, Managing corporate reputation, Nurturing an environment for innovation Training for design leadership. (Gemser, Giulia, et al., 2023)	YES always informally repeats HAP's vision which leads to innovation and preservation of Indonesian culture for the present in various internal and external dialogues consistently with the results of the firm's well-respected reputation both internally and externally.
DL strives for an innovative-oriented culture, learning culture, adhocracy culture, clan culture, hierarchical culture, and market/rational culture	YA makes the working atmosphere in the firm like home, with strict and family rules. Staff and partners say YA is like a second father to his staff.
DL shows leadership on both the design project side and the business management side	YA oversees, supervises and reviews all design and business decisions and always emphasizes that its designers understand the importance of empathizing with clients, and collaborating with clients, rather than prioritizing aesthetic goals and novelty alone.
DL shows behavior as a design thinker in managing design projects, team work and business management (Hsieh et al., 2021)	YES, in facing design and business management problems, always take steps that are identical to the design thinking stages, get inspired and empathize, define the problem, propose the idea and prototype, test and then prepare for implementation. YA always emphasizes on its designers not to give up during the design revision period.
DL exhibits these 7 qualities; Listen and look, emotional bonding, awareness to root of problem, doing, empowerment, responsibility, synchronicity (Hsieh et al., 2021)	YA always reminds its designers to learn from clients and experiences. And this is also reflected in YA's daily behavior. YA does not dominate its designers, but rather takes responsibility and shares ownership of the design, but when there are external problems, YA protects its designers.

Table 2

The following are sustainability leadership practices found in HAP

Sustainability Leadership Code	Sustainability Leadership Practice in HAP
SL explains the values of sustainability/equivalent YES consistently conveys the importance of the environment, fellow humans and project and firm governance in accordance with government regulations, architects' code of ethics and local customs, the details of which if traced are in accordance with the spirit of sustainability	SL explains the values of sustainability/equivalent YES consistently conveys the importance of the environment, fellow humans and project and firm governance in accordance with government regulations, architects' code of ethics and local customs, the details of which if traced are in accordance with the spirit of sustainability
SL provides an example with YA's actions being considered as a role model by designers and partners because the values conveyed are also carried out.	SL provides an example with YA's actions being considered as a role model by designers and partners because the values conveyed are also carried out.
SL has a noble vision for the future. YA has a vision towards innovation based on Indonesian culture for the advancement of the world of architecture and the people who use it, as well as for designers and partners.	SL has a noble vision for the future. YA has a vision towards innovation based on Indonesian culture for the advancement of the world of architecture and the people who use it, as well as for designers and partners.
SL gathers and invites other people to aspire to the same vision YES actively collaborates with clients, designers, government and indigenous communities	SL gathers and invites other people to aspire to the same vision YES actively collaborates with clients, designers, government and indigenous communities
SL looks for opportunities to always innovate. YA encourages its designers to always find something new that has an Indonesian identity	SL looks for opportunities to always innovate. YA encourages its designers to always find something new that has an Indonesian identity
SL supports experimentation and courage and emphasizes learning from experience. YA facilitates a work climate that supports experimentation and experience	SL supports experimentation and courage and emphasizes learning from experience. YA facilitates a work climate that supports experimentation and experience
SL facilitates collaboration and builds internal and external trust. YES ensures internal and external collaboration and always tries to build trust	SL facilitates collaboration and builds internal and external trust. YES ensures internal and external collaboration and always tries to build trust
SL strengthens others by developing independence and skills. YA encourages its designers to be	SL strengthens others by developing independence and skills. YA encourages its designers to be independent during the design

<p>independent during the design process, dares to interact with externals and emphasizes its designers to continue to learn from experience, apart from facilitating designers to see a lot by holding national and international trips every year.</p>	<p>process, dares to interact with externals and emphasizes its designers to continue to learn from experience, apart from facilitating designers to see a lot by holding national and international trips every year.</p>
<p>SL appreciates the contribution of fellow YAs, treating its designers like family, designers do not feel ordered but rather collaborate</p>	<p>SL appreciates the contribution of fellow YAs, treating its designers like family, designers do not feel ordered but rather collaborate</p>
<p>SL facilitates the presence of the spirit of the YA community in its interactions with indigenous communities, cultural observers and philanthropists consistently without tired of holding joint events to maintain the spirit of togetherness</p>	<p>SL facilitates the presence of the spirit of the YA community in its interactions with indigenous communities, cultural observers and philanthropists consistently without tired of holding joint events to maintain the spirit of togetherness</p>
<p>Both the work of the firm and the performance of the firm's management contribute to several SDGs. The work of the firm, although not all of them are certified as green buildings, has equal quality because YES upholds the value of environmental, social and governance preservation and does not violate regulations and codes of ethics, so there are several SDGs contribution achieved by HAP's work. Meanwhile, in the firm's operations, SDGs that are not related to green building are achieved through health, inclusiveness and decent work.</p>	<p>Both the work of the firm and the performance of the firm's management contribute to several SDGs. The work of the firm, although not all of them are certified as green buildings, has equal quality because YES upholds the value of environmental, social and governance preservation and does not violate regulations and codes of ethics, so there are several SDGs contribution achieved by HAP's work. Meanwhile, in the firm's operations, SDGs that are not related to green building are achieved through health, inclusiveness and decent work.</p>

The second finding is that there are many similarities between the design of leadership indicators and sustainability leadership indicators, especially related to the behavior of leaders. The thinking used in design leadership, namely design thinking, emphasizes the user and the context as the center of all decision making, be it decisions for the design of tangible objects or decisions for the organization, this is an alignment between these two leaderships, where sustainability leadership also emphasizes priorities. in ESG impact, which is equivalent to the user and the context in design thinking.

Discussion

This research aims to explore the practices that have been carried out successfully by an architectural firm in Indonesia. From the findings above, there is no conflict between the

application of design leadership and sustainability leadership. Several studies on design leadership state that sustainable design is one of the targets of design leadership and vice versa, design leadership can be useful for finding innovative solutions that solve problems related to sustainability (Gemser, Giulia, et al., 2023; M. D. Mumford, 2000; Waqas et al., 2022)

The theoretical contribution of this research is to fill the knowledge gap in the intersecting field between design leadership - sustainability leadership and architectural design firm sustainable practice. There is not much research on the integration of design leadership and sustainability (Hsieh et al., 2021). Likewise, with research on design leadership practice in architectural firms (twin, torr), there is a time span gap in research on this topic. Research on design and sustainability leadership in architectural design firms mostly only revolves around tangible design objects but does not extend to intangible objects such as the business management side of the firm. The populations often used in this research are industrial design companies and advertising agencies. The geographical gap also occurs because there is a lack of research in this context for the population in Indonesia.

The managerial implication of this research is to provide best practices that have been carried out by a design leader from a firm, which integrates design leadership and sustainability leadership to its application in work and management. From the findings, it can be found that efforts to collaborate and actively contribute to achieving SDGs that are relevant to architectural design firms, do not actually hinder innovation and the survival of the firm, but rather help the firm gain a national and international reputation, thereby creating a cycle of sustainability and firm scale growth (Li et al., 2020) .

The limitations of this study are generalizations, where as a creativity-based organization, architectural design firms and their leaders have unique characteristics that vary greatly from one another. Apart from that, the interviews carried out faced the adaptation of business management terms that could be understood by colleagues from the architectural field.

Direction for Future Research can be directed at using quantitative methods on larger samples, and can also use multi case studies and comparison strategies. Apart from that, in-depth research can also be carried out on the personal background of design leaders, what triggers the motivation to take part in sustainability and what shapes their design leadership mindset.

Conclusion

In conclusion, there is an important role for design leadership in an architectural firm in determining the direction towards sustainability. Considering the large risks posed by a development project, it is important for architectural firm design leaders to commit to producing ESG impact by consistently integrating sustainability principles into their vision, mission, operations and design results. External collaboration is important to support business processes.

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