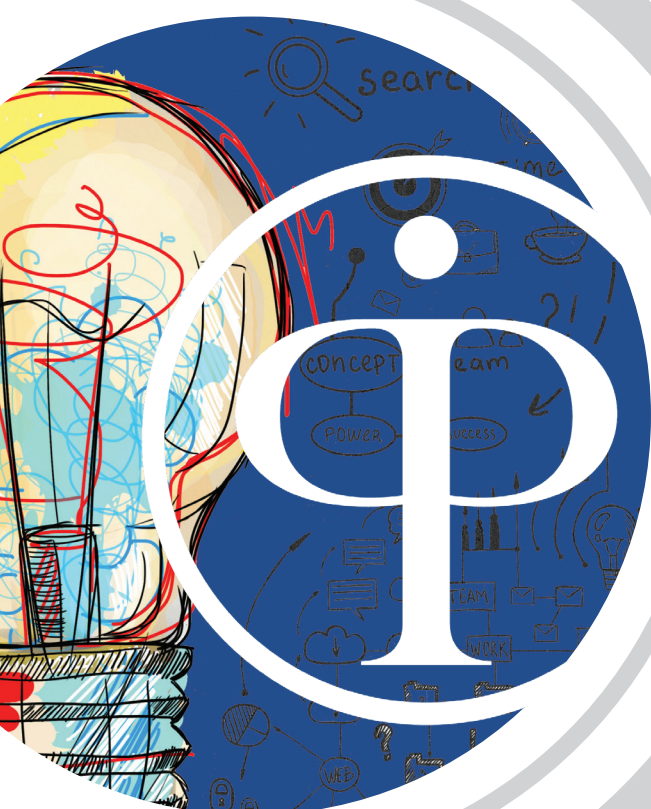




WHITE PAPER

A THEORETICAL & PRACTICAL ANALYSIS



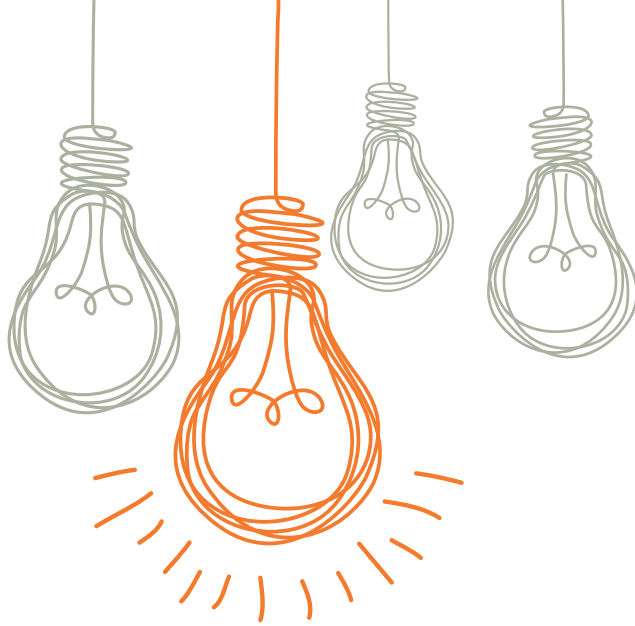
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INNOVATIVE LEADERS & LEADING INNOVATION


A THEORETICAL & PRACTICAL ANALYSIS

Our work on leadership development has highlighted how difficult it is for leaders to effectively harness innovation. Innovation relies on the interdependence of certain ways of thinking, particular behaviors and specific forms of knowledge-integration. The dynamic tension that this creates can generate innovative gold dust, but can also be a challenge to navigate.

This research paper will explore how leadership fits into the puzzle of innovation. It will critically examine existing literature on the topic of innovation and leadership and analyze key take-aways from 5 interviews which we conducted with experts from industry and academia. These resources will be exploited to highlight the main themes which shape the way that leadership and innovation coalesce in practice:

1. Conceiving the future creatively
2. Integrating knowledge: growth and collaboration
3. Embodying paradox: leadership flexibility
4. Failing to risk and risking failure

In the spirit of bridging the knowing-doing gap, something we're always focused on, these sections will use the literature and interviews to highlight the ways in which leadership and innovation coalesce in practice.



INTRODUCTION

In 2008, McKinsey did a survey on innovation and leadership. It included 600 managers and professionals. The report noticed that the top 2 motivators of behaviors which promoted innovation were:

- Strong leaders who encouraged and protected it.
- Top executives who spent their time actively managing and driving it (Barsh et al., 2008).

Over a decade later in 2019, innovation is still the hot topic on everyone's mind. In January 2019, the Harvard Business Review published an article on *The Hard Truth About Innovative Cultures* (Pisano, 2019) which acknowledged the difficulty in creating and sustaining innovative cultures. And as recently as March 2019, London Business School shared their insights into the 5 keys to unlock innovation (Dore, 2019).

Whether it is radical innovation that changes the nature of the whole business, or incremental innovation taking place in small steps, it is clear that leaders play a huge role in driving it (Barsh et al., 2008; Bessant, 2009).

An industrial survey of 204 articles, 94 surveys and 7 interviews assessed how the software industry defined innovation (Edison et al., 2013). They decided that the most complete definition was given by Crossan and Apaydin (2010):

"Innovation is production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and the establishment of new management systems. It is both a process and an outcome."

(Crossan and Apaydin, 2010: 1155)

This amorphous and messy definition of innovation is one that we will employ throughout this research paper. In an organizational context, innovation is both a process and an outcome. It can take the form of changing products and services or altering the structure and values of the organization (Prasad et al., 2016). Whatever shape innovation takes though, it is instrumental for the continued success of every organization.

Innovation is certainly associated with improved economic performance (Carmeli et al., 2011), but what exactly does it look like to be an innovative organization? And how can leaders work with their employees and organizations to create an innovative environment? Currently *"it is unclear which leadership approaches are the strongest predictors because the literature has largely failed to examine the relative contribution of different leadership values"* (Hughes et al., 2018: 564).

This research paper will explore how leadership fits into the puzzle of innovation. It will critically examine existing literature on the topic of innovation and leadership and analyze key takeaways from 5 interviews which we conducted with experts from industry and academia. These resources will be exploited to highlight the main themes which shape the way that leadership and innovation coalesce in practice.

METHODOLOGY



Our methodology was established to ensure that we attributed equal weight to theoretical work and interviews. This helped us to bridge the knowing-doing gap by allowing us to grapple with the way theory works in practice.

- **Literature Review.** We started with a literature review covering the relationship between leadership and innovation. We initially found 2 overriding topics were present in the literature: knowledge-sharing and creativity.
- **Interviews.** Our interviewees were selected on the basis of their knowledge on the topic of innovation and their positions as leaders. We conducted 5 1-to-1 phone interviews

throughout February and March 2019. These interviews covered the relationship between innovation and leadership. Our interviewees were selected on the basis of their expert knowledge on the topic from the angle of industry and academia. These took place with the following people:

- **Friederike Woermann-Seiger.** Head of Global Talent Development at Roland Berger, a leading global consultancy with 2,400 employees working in 34 countries.
- Human Resources Director for an international company.
- **Sandra Westmöller.** Head of Global Talent Management at HELLA, a global leader in the automotive industry employing 40,000 members of staff over 35 countries.
- **Dr Sionade Robinson.** Associate Professor of Cass Business School, one of the top 5 business schools in the UK (Financial Times European Business School ranking 2018).
- **Professor Gina Neff.** Senior Research Fellow, Program Director of the DPhil in Information, Communication and the Social Sciences at the University of Oxford. Professor Neff studies innovation, the digital transformation of industries and how new technologies impact work.

During the interviews, they were all asked the same initial question: *Would you be able to give a few key words or phrases about what an innovative organization looks like?* Following this, the interviews were semi-structured and covered the following topics:

- Leadership skills related to innovation
- Innovative employees
- The link between creativity, knowledge-sharing and innovation
- The importance of innovation
- **Analysis.** Through analyzing the content from the interviews and the literature review, we further distilled our initial topics of interest. This boiled down our focus to 4 themes which correspond to the 4 sections of this report:
- Conceiving the future creatively

- Integrating knowledge: growth and collaboration
- Embodying paradox: leadership flexibility
- Failing to risk and risking failure

1. CONCEIVING THE FUTURE CREATIVELY



Far from a nebulous concept, or something that appears ex nihilo, Margaret Boden, Research Professor of Cognitive Science at Sussex University, asserts that:

"Creativity is the ability to come up with ideas or artefacts that are new, surprising and valuable... grounded in everyday abilities such as conceptual thinking, perception, memory, and reflective self-criticism"
(Boden, 1990: 1, emphasis added)

Defining creativity in this manner is significant. It signals that the foundation of creativity comes from cognitive qualities which many people exercise in their daily lives.

Despite the discrepancies when it comes to defining the term 'creativity', we will argue that creativity can be encompassed by leaders and their teams through a number of practical steps. Creativity can be amplified by embracing a combination of everyday cognitive and behavioral practices in the workplace.

Creativity is intensified by an open culture. This allows groups to work more cohesively. In addition, it is not just about thinking outside the box and perceiving things from different angles, but about taking practical steps to solve real-world problems and perceiving constraints as opportunities. Ultimately, this contributes to the generation of game-changing ideas that lead to products and outputs which have a scalable impact in the market. This kind of creativity plays an instrumental role in fostering innovation in the workplace.

To explore the relationship between creativity, innovation and leadership we will examine:

- 1.1. Open culture: energy, support and lowering hierarchies

1.2. Practical creativity

1.3. Perceiving constraints as opportunities

As we will continue to do throughout this paper, insights from our literature review are woven together with insights from the interviewees. Firstly, this will be applied to creativity in organizations and how leaders can foster creativity as they and their teams conceive the future.

After all, as argued by William Barnett, Professor of Business Leadership, Strategy, and Organizations at Stanford Business School: *"our job in leading innovation is not to know the future, our job is to create the system that discovers that future"* (Barnett, 2017).

1.1. OPEN CULTURE: ENERGY, SUPPORT AND LOWERING HIERARCHIES

Creative leaders are strategic leaders. And strategic leaders, in this volatile, uncertain, complex and ambiguous (VUCA) world, are the ones who will be adaptable and able to create an innovative culture for their team and organization.

Experts in organizational studies and researchers at Nord Universitet, Johannessen and Stokvik, argue that 'innovation leadership' itself is strongly dependent on creative leadership actions:

"...in the global knowledge economy, leadership has become more and more a question of promoting entrepreneurial actions in order to create creative energy fields that can generate enthusiasm and motivate the front line in relation to creativity and action"
(Johannessen and Stokvik, 2018: 7)

They go on to say that innovation leadership should draw upon the creative potential that is spread throughout an organization in order to be *"...concerned with bringing out the creativity of everyone who works in an organization"* (ibid., 11).

Drawing out the creative instincts and potential of each member of the team is an important process for leaders to establish. This can be done by creating an open environment where people feel safe and supported to share their ideas without inhibition. Friederike Woermann-Seiger captured this in her interview. She said

that for leaders it's *"all about creating the right environment of trust and collaboration and really encouraging people to develop new thought"*. This can be hindered in an environment where a couple of people dominate. However, with the introduction of *"democratic discussion processes"* the environment can remain safe and open.

This was further expanded upon by Dr Sionade Robinson in her interview. Robinson spoke about two particular qualities which leaders can exhibit to harness creativity in their employees. We have labelled these qualities as 'kinetic' leadership and 'supportive' leadership:

- **Kinetic leadership.** Robinson talked about leaders who have high-energy when they enter a room. These leaders foster creative responses in their employees. They have what Robinson calls an *"energy-raising quality"*. Often people who have this ability to spark energy and joy are quite humorous, sometimes in a self-deprecating way. They allow opportunities for laughter which can act as a mechanism for inclusion and lowering of perceived status barriers that may inhibit participation. This helps teams to become cohesive and proactively energetic.
- **Supportive leadership.** Robinson also talked about the fact that *"people have to be relaxed to be creative"*. It is the ability of leaders to create 'psychological safety': an atmosphere where people feel safe to put forward ideas, thoughts, or questions, even if they seem a little *"crazy"*. Psychological safety acts as a supportive mechanism and it is enhanced when there is a reduction in perceived status between the leader and members of the team.

Robinson summarized these 2 aspects of leadership:

"A leader that is able...to create a safe environment or to mitigate status differences in different members of the group, or to use humor inclusively to warm the bonds...you'll be able to get some fresh perspectives on the table"

Overall, we can see that the leaders who employ humor, high-energy and create an environment of psychological safety often foster an inclusive, open and equal atmosphere. This helps facilitate

inputs from all members of the team and increases the chances that unique and useful ideas will spring onto the table.

Woermann-Seiger bolstered this point. She talked about how lowering hierarchies can import a more creative atmosphere. This means trading control and micro-managing for a more open way of approaching the members of your team. This requires leaders to listen and integrate members of the team into the solution.

One way to think about how to induce this kind of humorous, energetic and status-lowering leadership style might be to employ unconventional leadership styles. We see this suggested in relation to creativity by Jaussi and Dionne (2003). They talk about how unconventional leadership styles, such as standing on furniture and hanging ideas on clotheslines, allows members of the team to see these leaders as role models for creativity.

We can also see in social-exchange theory, that positive exchanges between leaders and followers results in followers seeking to repay favorable leader treatment (Martin and Thomas et al., 2016). This mechanism is bound to help lure any creative ideas out of employees. Inducing intrinsic motivation and generating team creativity comes from positively engaging employees with tasks and challenges.

Building on the importance of positive engagement, Barbara Frederickson's broaden-and-build theory adds that there are 3 distinct components of positive emotions that compliment one another:

- **Joy** creates the urge to play.
- **Interest** creates the urge to explore.
- **Contentment** creates the urge to savour the present and "integrate these circumstances into new views of the self and of the world" (Frederickson, 2004).

If a leader can invoke these attributes within a team, creativity, which may lead to innovation, will also not be far away.

In terms of leaders creating a safe and supportive atmosphere, it is clear that this plays a big role in fostering innovation. Amabile et al. (2006) investigated perceived leader support (instrumental and socioemotional). It found that in 7 different companies, leader support was a key feature for fostering creativity.

We see a similar finding in a paper by Charalampous et al. (2015). They suggest that creative leadership refers to leading others toward the attainment of creative outcome.

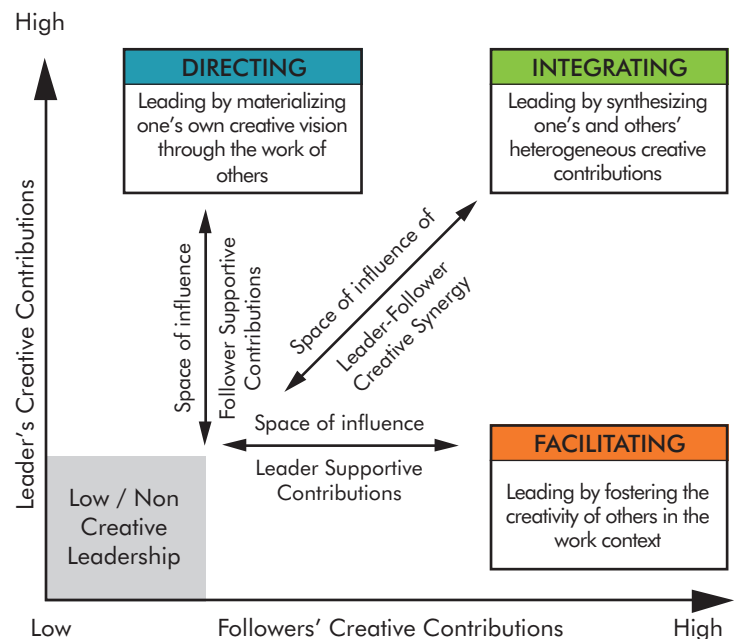


Figure 1: A Multi-context framework of creative leadership (adapted from Charalampous et al 2015)

As we can see from the model above (Charalampous et al., 2015, Figure 1) they argue that support is a big part of the facilitation of creativity:

"Supportive contributions are rarely seen as creative contributions themselves, but they play a crucial role in triggering, enabling, and sustaining creative thinking and behavior..." (Charalampous et al., 2015: 400)

This includes psychological, social and material support. The result of this is that there is not 1 sole creator; it is the supportive contribution of many that leads to a creative output.

1.2. PRACTICAL CREATIVITY

"Creativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. The creativity stage of this process refers to idea generation, and innovation to the subsequent stage of implementing ideas toward better procedures, practices, or products. Creativity and innovation...will invariably result in identifiable benefits" (Anderson et al. 2014: 1298)

It is clear that Anderson perceives creativity and innovation as separate parts of a process: creativity is the idea generation and, separate to this, innovation is the implementation. We would like to suggest a different definition of creativity, considering the role it plays in innovation: practical creativity.

Practical creativity combines divergent thinking and lateral thinking regarding dilemmas both internal and external to the organization. Divergent thinking employs the exploration of many different ideas, concepts and solutions and lateral thinking addresses real-world problems by viewing the problem in a new light. Overall, this combines thinking outside the box with a practical outlook. And this allows organizations to innovate by conceiving the future creatively. As Sandra Westmöller shared with us, a creative person, and by extension a creative leader, is one who:

"can see things from a different angle, think outside the box, and who uses an open dialogue with his colleagues to learn the perspectives and ideas from others. Creativity is an enabler and contributor for innovation"

Professor Gina Neff, during her interview, talked about the way in which creativity is often based on a practical solution to a problem. Innovation *"doesn't have to be new, it has to be a creative solution to a real-world scenario"*. Neff talked about how one of the best ways to encourage this is to tease out the tacit knowledge of every worker. We also see this sentiment of using creativity to find solutions to practical problems in a paper by Mumford et al. (2014). They identify that *"creative work can occur when the tasks presented involve complex, ill-defined problems where performance requires the*



Professor Gina Neff

generation of novel, useful solutions" (Mumford et al., 2014: 707).

During our interview with the Human Resources Director of an international company, this practical approach to innovation was also highlighted. He emphasized the importance of curiosity for innovative organizations, rather than necessarily what people would traditionally perceive as 'creativity'. He expressed it is more about practical creativity. We can use data to spot the gaps in the market in order to pinpoint what people need and find a practical solution. This keeps innovation focused on the practical needs of customers. This can go beyond predictability as well. He gave us the example of the iPad: no one thought people would be in such need of a device, but it went beyond predictable creativity and it met consumer needs. It is a perfect example of this kind of practical creativity.

In order to harness practical creativity, we need to develop ways of balancing divergent thinking with lateral thinking. Diving into what each of us can do to foster these cognitive processes, we will touch on 2 frameworks. The first is from Boden's earlier work on the creative mind, which details 3 types of personal creativity we should explore, and the second is from Harvard Business Review's study on senior executives at innovative companies which outlines 5 'discovery

activities' which distinguish the most creative executives.

When balancing creativity and practicality, Boden (1990) suggests that we should each consider 3 types of personal creativity in parallel with the practical aspects of what can be put into play. According to her these distinct forms are:

- **Making unfamiliar combinations of familiar ideas.** This can be either deliberate or unconscious.
- **Exploring structured conceptual spaces.** This includes questioning the limits of these spaces.
- **Transforming the space itself.** This is the most difficult of all; it is about conceiving of thoughts which you previously thought were inconceivable.

As these types of creativity are distinct from one another, it can be a useful exercise for leaders to experiment introspectively or with their teams to ensure each form of creative thought is represented.

In their Harvard Business Review article (2009), *The Innovator's DNA*, Dyer, Gregersen and Christensen specifically studied CEOs and identified 5 discovery activities. They found that, "innovative entrepreneurs (who are also CEOs) spend 50% more time on these discovery activities than do CEOs with no track record for innovation". The discovery activities are:

- **Associating.** Connecting seemingly unrelated questions, problems, or ideas from different fields.
- **Questioning.** Focusing on the why's and the what's, not the how's; imagining opposites and embracing constraints.
- **Observing.** Producing uncommon business ideas by scrutinizing common phenomena, particularly the behavior of potential customers. In observing others, they act like anthropologists and social scientists.
- **Experimenting.** Creating prototypes and launching pilots.
- **Networking.** Devoting time and energy to finding and testing ideas through a network of diverse individuals: "Unlike most executives—who network to access resources, to sell themselves or their companies, or to boost their careers—innovative entrepreneurs go out of their way to meet people with different kinds

of ideas and perspectives to extend their own knowledge domains"

These 2 frameworks show us ways to stimulate the ability of both employees and leaders to think divergently and laterally. In other words, these cognitive and behavioral explorations enhance our ability to balance thinking outside the box with thinking practically about solutions to real-world problems. This balancing act links to the balance of exploring and exploiting, a skill which will be explored more in the section on *Embodying Paradox*. The kind of practical creativity which stems from these qualities will help organizations to innovate by conceiving the future creatively.

1.3. PERCEIVING CONSTRAINTS AS OPPORTUNITIES

It's also important for us to address constraints and limitations. After all, practical creativity isn't all about blue-sky thinking.

Leaders will almost certainly face constraints within their team, market or production line. This could lead to the misconception that these constraints reduce the potential for creative leadership. However, the opposite can be true.

Boden stresses this point in her research:

"Creative constraints... can leave many options open at certain points in one's thinking... In short, human creativity often benefits from 'mental mutations'... phenomena such as serendipity, coincidence, and unconstrained conceptual association are useful, because they provide unexpected ideas that can be fed into a structured creative process" (Boden, 1990: 241)

An example the Human Resources Director for an international company used in our interview was Fortnite. Though constrained in the sense that it is a free-to-play game it is also free to market. Through earning V-bucks, trading and purchasing packs to progress to higher levels, players can also invest heavily. As a result, Fortnite, and other games like it, have created a booming business model in the face of large barriers. And its potential is essentially limitless.

In a leadership context, what's significant about creativity is that it can be amplified and resonate through teas and organizations. This does not

occur in spite of constraints, but rather because of them organizations.

Creativity leads to impactful innovation as it establishes the environment and matrix within which it can occur. Though it can be difficult to get the environment just right, as a leader, the challenges can be systematically addressed as we've explored above. Once that culture is embedded, and team members feel safe to share their ideas and think outside the box, knowledge from different parts of the organization can be integrated and innovations generated for their benefit, as we will further examine in the next section.

PUT IT INTO ACTION

- Create an open culture through employing humor, high-energy and psychological safety. Demonstrate a leadership style which is both kinetic and supportive helps to lower hierarchies and foster an inclusive and equal atmosphere. As a result, teams feel safe to express their creative thoughts and ideas.
- Think of creativity practically. This combines divergent thinking and lateral thinking regarding dilemmas both internal and external to the organization. Practical creativity balances thinking outside the box with a practical outlook, which helps organizations to innovate by addressing real-world problems with useful solutions.
- Perceive constraints as opportunities in order to radically shift how your team approaches and solves problems.

2. INTEGRATING KNOWLEDGE: GROWTH AND COLLABORATION



"Progress, then, is a kind of collective thinking, which lacks a brain of its own, but which is made possible...by the solidarity of the brains of numerous scholars and inventors who interchange their successive discoveries" (Tarde, 1903: 149)

The interrelationship between inventive, original thought and the collaboration of individuals is widely accepted as a prerequisite for progress. And when it comes to conceptualizing and executing innovative ideas, this combination is vital for organizations.

Here, we will explore 3 ways in which leaders can steer organizations to reinforce innovation through encouraging the integration of knowledge:

- 2.1. Knowledge growth: breadth and depth
- 2.2. Internal collaboration and diversity
- 2.3. External collaboration and open innovation

These 3 ways of integrating knowledge, which leaders can help to instigate and ingrain, can catalyze innovation. They sharpen awareness and instinct, grow expertise, enhance connectivity and strengthen ideas and processes through integrating different forms of knowledge. Caridi-Zahavi et al. (2015) talk about how knowledge integration is *"a vital process through which the exchange of experience and expertise helps translate new ideas into new outcomes such as new products or new services"* (Caridi-Zahavi et al., 2015: 357). The exploitation of integrating knowledge through growth and collaboration aids organizations in progressing and flourishing in today's rapidly changing world.

2.1. KNOWLEDGE GROWTH: BREADTH AND DEPTH

Potikes and Barnett (2017) in *The Coevolution of Organizational Knowledge and Market Technology* argue that there are advantages in the pursuit of 2 things:

- **Knowledge consistency.** This is knowledge built gradually over time which leads to “a comprehensive knowledge base that cannot be easily replicated by a quick move into a particular research area” (Potikes and Barnett, 2017: 8).
- **Knowledge specialism.** This denotes the way in which “the specialist to a given area of knowledge space devotes all its resources to innovating in that area” (ibid., 11).

These 2 forms of knowledge both emphasize the importance of obtaining depth of knowledge in organizations. This depth of knowledge comes from a long-term commitment to building knowledge in a specific area and also the commitment of resources to bring about new, innovative phenomena within that area.

A depth of knowledge is certainly advantageous when it comes to conceiving of innovative ideas. Intimate know-how of specific topics enables the individual and the organization to identify the places where improvement is necessary and how it can be implemented. Importantly for organizations, this depth of knowledge will contain awareness of the market needs, target audience and competitors.

This was identified during their interview by the Human Resources Director for an international company as an important precursor for innovation. He emphasized the importance of hyper-awareness for leaders and similarly the importance of encouraging employees to pursue a considerable depth of knowledge. Their goal as an organization is for employees to be customer obsessed: aware of customer trends through social media, customer surveys and consistent market research.

On the other hand, he also recognized the importance in obtaining a breadth of knowledge for organizational innovation. It is not necessarily solely being aware of what’s in front of you but being cognizant of what’s around you. An example that he gave was the ability to think more broadly about who could be identified as your competitors in the market. For example, from the angle of beauty products, it might be wise to look at what chocolatiers are producing. Even if the organization which deals with beauty products is not producing chocolates, their gift products will compete in the market. It cannot hurt to know their target audience, products

and strategies intimately in order to compete effectively.

In their 2010 paper, Exploring the effects of creative CEO leadership on innovation in high-technology firms, Makri and Scandura take a slightly different approach, but their argument proves a similar point. They isolate 2 dimensions of strategic leadership: creative leadership and operational leadership.

- **Creative leadership.** An emphasis on developing internal knowledge, human capital as well as being “skilled at *stimulating creative staff intellectually, trusting and supporting them, and providing them latitude*” (Makri and Scandura, 2010: 76).
- **Operational leadership.** This is the ability to “sense new market needs, develop new concepts for products and services, and increase the firm’s knowledge diversity by diversifying into new products/markets via merges, alliances or acquisitions” (ibid.).

A leader who drives innovation needs to have a good sense and awareness of internal development as well as external movements and the ability to identify new opportunities. In other words, as we can see above, they need to encourage both depth of knowledge as well as breadth of knowledge. Leaders need to identify a breadth of areas and sources of knowledge acquisition as well as enhancing and nurturing knowledge depth within their own team.

The importance of a breadth of knowledge for innovation is also touched on by Leiponen and Helfat (2010). Their argument hangs on the fact that given the risk of innovation, firms can improve the odds of success by drawing on lots of sources in order to get ideas and also through having a breadth of innovative objectives. Their study on the manufacturing sector in Finland found that a greater breadth of knowledge sources and innovative objectives was associated with greater innovation success at the firm level, particularly for newly commercialized innovations in terms of sales revenues.

Leaders’ encouragement of sustaining deep and broad knowledge, both through internal self-development and awareness of current external sources, is a balance which will facilitate an innovative organizational culture. And the innovations which they decide to pursue are



Friederike Woermann-Seiger



Dr Sionade Robinson



Sandra Westmöller

more likely to be on-the-money with what products they are offering in the market.

2.2. INTERNAL COLLABORATION AND DIVERSITY

In a recent report by the Boston Consulting Group on how diverse teams boost innovation (Lorenzo et al., 2018), it was found from a sample of 1,700 global companies that companies which champion diverse leadership teams boast 45% innovation revenue (revenue from products brought to market within the previous 3 years) compared with just 26% from companies with less diverse leadership. This diversity not only included factors like gender, culture and ethnicity, but also people who have had non-linear career paths and experience in other industries.

Diversity within teams is a great aid to increasing innovative knowledge in organizations. It welcomes different approaches and viewpoints and it also naturally creates a context for friction and criticism. This only makes products and services more resilient. As Friederike Woermann-Seiger mentioned:

"We need to be collaborative in terms of integrating people of different backgrounds into project teams working on innovative topics"

After informing us of the struggle for diversity in their own organization, one which many organizations encounter, Woermann-Seiger asserted that their push for diverse teams very much continues. It is crucial for innovation that they *"enlarge the pool of knowledge and the way project team members are approaching the issue at hand"*. Their efforts to improve cultural diversity, and subsequently diverse knowledge-integration, has resulted in a rotation program in which employees from different countries, and even from clients and digital partner companies, swap with one another for a short period of time. She noted that this allows the organizations to lower the barriers, collaborate and consider each other's ideas. And this promotes innovation:

"If you don't exchange and you don't mix the team then you will always have these internal barriers which block innovation"

Dr Sionade Robinson pointed out one of the sources of these barriers: the common knowledge effect. As Daniel Gigone, one of the leading scholars on the concept, defines it, this encompasses the way in which *"information known by everyone prior to discussion has a more powerful influence on decisions than information not shared by everyone"*. In other words, people much prefer information which lots of people have in common, and tend to

neglect unique information (Stasser et al., 2012). The inclination, therefore, is to give information which is held by the majority more credibility than the information which individuals or minorities may hold. This is counterproductive for knowledge-integration.

Robinson talked about the challenge this presents to leaders: making the most out of diverse groups and the diverse knowledge they will inevitably bring to the table. In order to do this, Robinson said, leaders have to manage the common knowledge effect in order to bring diverse groups together. Robinson talks about 2 main ways by which this can be done:

- **Psychological safety.** Leaders can create a psychologically safe environment where people feel they can share their views, thoughts and information. This allows the information which is not held in common to have due airing. This comes from mechanisms such as humor, self-deprecation and hierarchy reduction from the leader (which are all discussed in further depth in the first section, *Conceiving the future creatively*).
- **Commonly relatable analogy.** Explicitly labelling the experience as knowledge-sharing helps employees to get into the mode of exploring together. An example that Robinson gave was talking to the group upfront about the mindset held by explorers and how they approach the task to try and get them to identify as explorers themselves and adopt the skills of an explorer: preparing thoroughly, reading the conditions well, being sensitive to operation conditions of the team and thinking carefully about risk management and goal achievement.

Currently, Robinson is researching the contribution of an 'explorer's mindset' to leadership development and regularly shares short articles on LinkedIn using concepts of exploration to interrogate contemporary management thinking. These include *How to choose the best crew for a voyage of discovery* (February 2019), *First Man: Was Neil Armstrong's epic lunar mission an adventure, expedition or stunt?* (October 2018) and *What I learned when I changed my shoes* (April 2017) among several others.

Both psychological safety and commonly relatable analogy are positive for innovation;

they lower barriers and bring together a large pool of diverse knowledge, which ultimately makes ideas sturdier. Professor Gina Neff also pinpointed the importance of capitalizing on psychological safety so that people feel like their ideas will be listened to, rather than feeling protective over their work in progress. The trust and openness which is facilitated by psychological safety can be used as a catalyst for innovation.

Sandra Westmöller expanded on these points. She commented on the fact there is a barrier to gaining team diversity: a bias in selection processes:

"A manager needs to select people who are not like them – which is of course contrary to the first impulse to select someone who is exactly like you. If people are too similar, there is a good chance that you won't have an innovative process"

Westmöller talks about how the beauty of diverse teams and asserts that they bring together different perspectives, ideas and backgrounds. This is why they can detect different problems or at least different aspects of the same problem. Diversity thus enables disruption and innovation. In order to firefight the tendency to homogeneity, expressed Westmöller, there must be an awareness of the problem and an element of self-reflectiveness: you need to know how you think and the criteria you are reflexively using to judge people.

We see this echoed in Donn Byrne's 'Similarity-Attraction Theory' (1969). This argues that individuals are attracted to those with whom they share something in common. In order to create a more innovative team, this predisposition in recruitment is crucial for organizations to address.

Westmöller also expanded on the fact that it is not just through the local recruitment process that leaders of international organizations can foster diversity and contribute to organizational innovation. They can also use technological platforms to collaborate with colleagues across the globe. This helps to gain diverse perspectives and enables international networks on certain topics which can be applied to their own processes. This happened, for example, in a global collaboration of their HR teams

when assessing the gender balance problem in recruitment; they found that gaining multiple different perspectives on ways to ameliorate team diversity, especially from teams who have a high rate of success in recruiting diverse teams (e.g. in China), was incredibly enriching and helpful.

The Human Resources Director for an international company also pointed out that, as a leader, it is important to focus on facilitating internal collaboration. He gives the example of a 2-day company hackathon. This allowed people to come together to discuss 2 big problems in the organization. This safe space to collaborate and share provided lots of good raw ideas and viewpoints which the organization could then build upon: *"If you can frame the question well and get people to collaborate effectively from different cultures...you get a really good output"*.

He expressed that the importance of diversity does not just apply to background, gender and ethnicity but also to diverse ages and different levels of the organization. It's important to bring people up in the organization who are of a different generation and may have fresh insight. This will not only create a cohesive organization where everyone feels listened to, but it will also make sure all areas of the organization continue to innovate and feel motivated to do so.

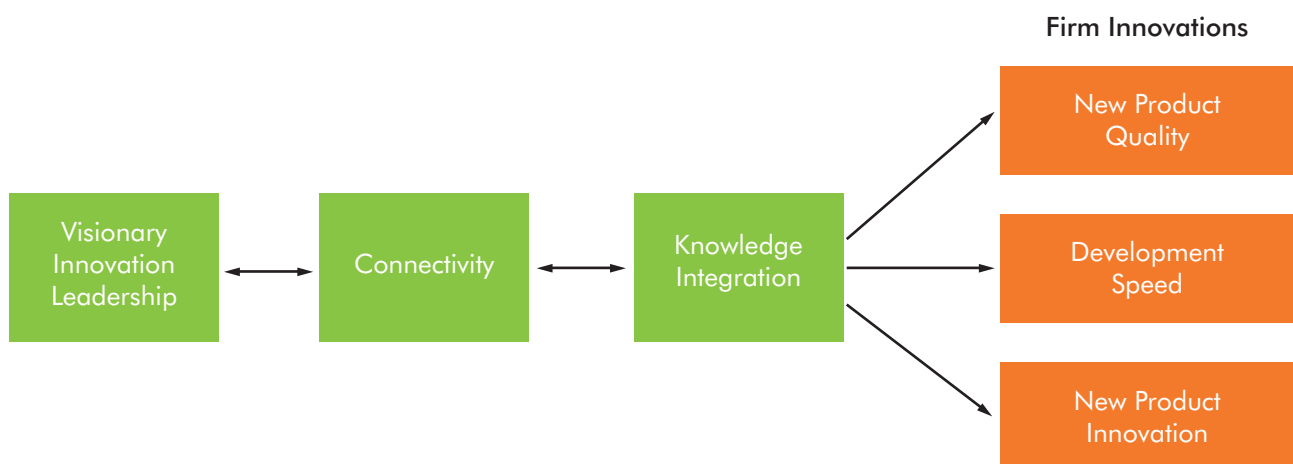
Professor Gina Neff highlighted the positive impact of this internal collaboration. She referenced the company 'Quantum Black' who have a designer sit in with each of their learning teams. This internal collaboration

and knowledge-sharing leads not only to well-rounded ideas, but to more realistic and practical innovation.

This internal collaboration from all departments of the organization is also championed by Bessant (2009). In his book on creativity, culture, concepts, process and implementing surrounding innovation, he advocates the idea that organizations should integrate people from all levels of the organization rather than placing the 'innovative' members of the organization far away from others. He writes:

"You should not attempt to limit innovation to research labs or marketing meetings – it should be something to which everyone can contribute" (Bessant, 2009: 16)

In the same vein, a field survey-based study among 69 small-to-medium-sized technological ventures in Israel (Caridi-Zahavi et al., 2015) showed that CEO visionary innovative leadership was positively linked to a context of connectivity in the organization, and this itself was related to firm knowledge integration which in turn enhanced innovation. They define visionary innovation leadership as *"the ability to create and articulate a realistic, credible, and attractive vision of the future for an organization"* (ibid., 359) and connectivity as high-quality work relationships characterized by openness and generativity. Their high-level hypothesized model, through which they go on to illustrate further interdependencies as they develop it in their study, is shown below.



The hypothesized model illustrating connectivity between visionary leadership and firm innovations (adapted from Caridi-Zahavi et al 2015)

These leadership qualities of exhibiting visionary tendencies and creating a context of connectivity are essential characteristics when it comes to promoting an innovative environment. Additionally, the ability of leaders to integrate and create bonds within teams is imperative for enhancing collective innovation (Jiang and Chen, 2016).

In terms of communication which might facilitate this collaboration, we see the importance of what Gina Neff and Carrie Dossick refer to as 'messy talk'. In their 2011 paper, *Messy talk and clean technology*, they studied inter-organizational collaborations among architects, engineers and construction professionals. 'Messy talk' denotes the conversations that are not concerned with topics on meeting agendas, nor on specific problems. These interactions fill gaps of knowledge within organizations and between organizations. During the interview, Neff noted the example of a new digital tool implemented by 1 of the organizations in this study to increase collaboration. In fact, it did the opposite. What was more productive for innovation were these 'messy talk' situations; they allow for the exchange of informal, active and flexible conversations and tacit knowledge.

2.3. EXTERNAL COLLABORATION AND OPEN INNOVATION

"CEOs who are able to simultaneously focus on the external and internal environment, will be more effective leaders"
(Makri and Scandura, 2010: 76)

By prioritizing exploitation of knowledge both inside and outside of organizations, leaders can strengthen innovation (Berggren et al., 2011). Carmeli et al. (2010) summarize this well, writing:

"When the leaders display innovation-related behaviors they are cultivating a context that enables people to come up with creative ideas to solve problems, thus enhancing the capacity of the system to respond to changing conditions in the external environment"
(Carmeli et al., 2011: 341)

A recent article in the Harvard Business Review by Deichmann, Rozentale and Barnhoorn defined open innovation as a process for knowledge sharing across different organizations. They give the example of L'Oréal working with Renault on the 'electric space concept car'. Strangely, though, they point out that even though collaboration increases, the adoption of these ideas does not seem to be on the rise. Similarly, a recent poll by Accenture shows that more than 50% of surveyed corporations said these partnerships do not seem to be yielding as many new products as they had hoped.

So, is open innovation everything it is cracked up to be?

Open innovation certainly has been found to have a really positive impact on innovation performance measures (Inauen and Schenker-Wicki, 2011). Woermann-Seiger also noted in her interview how critical it is for leaders to network to engage in external collaboration and how openness and good networks bring great people together. Specifically, she gave the example of their recent event in Singapore and Learning Journeys to US and China to foster innovation. This brought together people from start-ups, digital companies and it connected innovators, investors and universities. This was an incredibly productive way of knowledge-sharing with people outside of the company.

Equally, in a 2016 article in Nature, Richard Hodson talks about the importance of open innovation in the instance of developing medicine. Competitors are partnering with each other and releasing tools to explore potential drug targets: *"The freely available chemical probe JQ1, for instance, has sparked more innovation than it ever would have had it been kept locked away"*.

So, external collaboration is definitely worth pursuing. But the right conditions must be in place. Through the examination of 7 case studies, Deichmann, Rozentale and Barnhoorn (2017) found it was true that *"ideas that incorporate the diverse views of different experts and stakeholders are stronger"*. The important thing for enhancing this collaboration is cultivating flexibility and trust, creating multi-layered networks, fostering equal ownership, establishing interim milestones, building open business cases and prototyping early.

Picking up on the importance of **trust**, Miles Raymond in his assessment of leadership in technological innovation in the U.S., makes the vital point that within trusting relationships, individuals feel freer to collaborate and share knowledge in the process of innovation:

"In every industry, most innovations are powered by collaborative knowledge sharing relationships. It follows that organizations and managers that are capable of creating conditions that build and sustain trust...are more likely to be successful"
(Miles, 2007: 195)

The trust climate can be maintained by leaders in a number of ways, but 3 notable ones are:

- **Recognition.** As Miles points out, leaders maintain this trusting climate which then goes on to generate high rates of innovation. This is done by *"regularly recognizing and acknowledging contributions and encouraging efforts to find new knowledge sources both within and across unit and organizational lines"* (Miles, 2007: 199). Knowledge-sharing, integration and exploration are crucial things to enhance when it comes to innovation.
- **Mutual understanding.** Communicating the norms and values of a shared collective mission is important for productive knowledge-sharing (Jackson et al., 2006). Kozlowski and Yamin (2010) aim to present a framework that enables organizations to enhance innovation. They pick up on the fact that better communication and understanding between management and employees may create a culture of trust which can positively contribute to the performance of the company. This also translates to open innovation. It is important that there is clear and honest communication between organizations which creates a mutual understanding through trust.
- **Actioning.** This trust cannot remain static and unactioned. Leaders have to walk the talk and demonstrate commitment to their employees by placing actioned trust in their ideas. Davila et al. (2013) demonstrate this viewpoint in their book *Making Innovation Work: "Innovation management depends on the leadership at the top. The team at the top must want it to happen and trust its people*

to make it happen. Innovation cannot be an espoused theory, with top managers preaching it but not believing it. Innovation must be a theory in action; top managers must be committed and follow their commitment with actions" (Davila et al., 2013: 13).

In many cases, even if external collaboration doesn't lead to successful implementation, it broadens the scope of knowledge and networks which organizations can use in their future innovations. In order to make these external networks strong and productive, trust is a key element to ensure there is the best chance of innovation. With 'trust' being a core part of our Science of Happiness at Work model at iOpener, we certainly believe this is a quality which should be championed and implemented by leaders in order for organizations to thrive. (Pryce-Jones, 2010)

PUT IT INTO ACTION

- Grow knowledge which demonstrates both breadth and depth. Depth of knowledge requires intimate knowledge of your customers, organization and areas of expertise. Breadth of knowledge entails being cognizant of what's around you, especially regarding competitors in the market.
- Collaborate both internally and externally. Internal collaboration is strengthened by diverse teams; this enlarges the pool of knowledge and ultimately makes ideas more resilient. Leaders should also aim to maximize connectivity within teams. External collaboration is also important for innovation. And it should establish a trusting environment through recognition and mutual understanding.

3. EMBODYING PARADOX: LEADERSHIP FLEXIBILITY



"A combination of different leadership behaviors flexibly applied to changing requirements within the innovation process is more effective" (Rosing et al., 2011: 957)

Leaders who foster innovation are those who can flex in different environments to the point where, if required, they can use diametrically opposing leadership techniques. In essence, they embody paradoxical qualities.

We will go on to explore 2 ways in which leaders can embody paradoxical qualities which are both equally important for innovation in different scenarios:

3.1. Balancing speed with long-term goals

3.2. Exploring versus exploiting

The word itself 'innovate' comes from the Latin words 'in' and 'novare' which literally means 'to change, to make something new' (Bessant, 2009). The nature of innovation processes is intrinsically one of change and leaders also need to be adaptable to foster innovation.

In her interview, Sandra Westmöller talked about the fact that innovative leaders and innovative employees have in common that they *"don't fear change and embrace change as something positive"* and that they are also *"really flexible"*. In this sense, organizations which exemplify successful innovation processes often exhibit flexible employees and flexible leaders. When asked about how leaders can facilitate this flexibility in employees, Westmöller answered that these qualities develop over time from leaders creating successes for their employees; there is a good chance people will adapt if you encourage them to try something, be brave with their decisions, try something new, and celebrate successes when they arise.

The fact that innovation is both multi-phase (initiation, adoption decision and

implementation) and also multi-dimensional (influenced by multiple factors, including environment, context, market, etc.) means that if innovation is to take place people must be willing to adapt to lots of different scenarios and challenges (Damanpour et al., 2006).

Ultimately, successful leaders in disruptive environments both adapt themselves and cultivate a working environment which is ready to change and adapt (Carmeli et al., 2011; Chistensen, 1997; Hammer and Champy, 1993).

3.1. BALANCING SPEED WITH LONG-TERM GOALS

"If you want your organization to strike the delicate balance required, then you as a leader must demonstrate the ability to strike that balance yourself" (Pisano, 2019)

When asked about which qualities which are important for leaders in terms of encouraging innovation in employees, the Human Resources Director for an international company answered by talking about the importance of 'leadership agility'. This agile approach is necessary in order to constantly think about things from different angles. As a leader, he said, in order to induce successful innovation, you can't just let your organization carry on what it's doing, but rather:

"You need to react very quickly to what's going on around you"

Similarly, the leadership qualities of speed and agility were also touched on by Friederike Woermann-Seiger. She said that innovation doesn't necessarily come from the *"traditional process path of planning, testing...things that take a long time"* but in fact in order to be innovative *"we need to be more flexible, we need to be faster"*. In order to capture innovative ideas before anyone else and get ahead of the game, leaders and those responsible for projects need to make **fast decisions** to pilot an idea, review it, and decide quickly whether or not to pursue it. Woermann-Seiger commented that this is something they have realized is necessary for innovation at Roland Berger:

"[We have] reduced our wish for security and control and analysis...we are able to implement new topics and processes in a time when they are still new...if we would stick to the old ways of implementing, we would always lose those first moments"

Woermann-Seiger continued to expand on the importance of this leadership quality by means of a recent case study which exemplifies the success that can come with speed of implementation. At Roland Berger, they have introduced regular internal innovation sessions where employees are invited to present innovative topics and possible partners. Doing this has fed ideas into the organization and improved their organizational ecosystem:

"[We thought] we need to create a wave and create momentum and bring something new into the organization"

On the other side of the coin, it is incredibly important for organizations to be driven equally by long-term goals. A McKinsey Quarterly article in 2012 advocates this engagement with the long-term goals of an organization to drive things like its innovation and economic prosperity:

"The fact is that when people don't have real targets and incentives to focus on the long term, they don't; over time, performance declines because not enough people have the attention, or the capabilities, to sustain and renew it"
(Gibbs, Heywood and Pettigrew, 2012: 129)

It has also been found that long-term managerial influences were found to have a greater impact on knowledge creation when combined with knowledge-exploitation resources (Zelaya-Zamora and Senoo, 2013). Woermann-Seiger endorses the view that organizations should use overarching long-term goals in order to shape these faster-changing movements. The ability of leaders to communicate a long-term vision helps to prioritize what you're going to do for the next few weeks, months and years. And on the other hand, this gives greater flexibility to adapt and develop their activities. It allows for them to measure ongoing change:

"To extend the horizons of your thinking and your planning and even go beyond what you already know, and use this as a guideline for your short-term plans"

In this sense, it is crucial for leaders to be able to flex between spontaneous decision making and keeping long-term goals firmly on their horizon.

3.2. EXPLORING VERSUS EXPLOITING

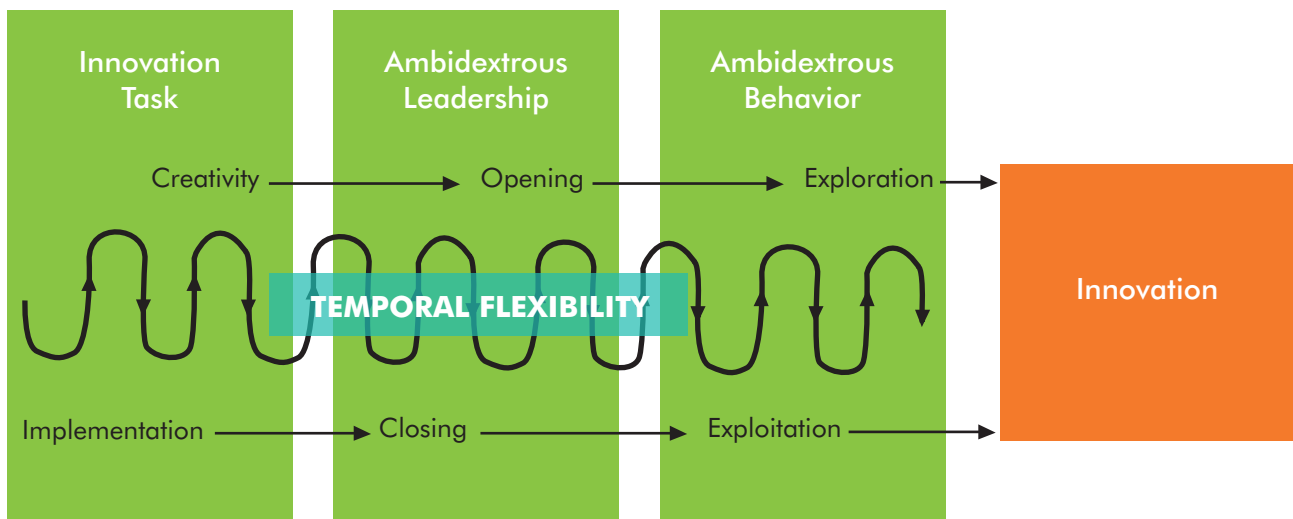
"Being able to shift from new knowledge creation and exploration, to new knowledge application and exploitation highlights the challenge of leading effectively"
(Makri and Scandura, 2010: 76)

The ability to come up with new, exciting, innovative ideas must be complemented by the ability to put these ideas into practice successfully (Yang, 2005). In other words, leaders need to create an environment which will successfully explore and successfully exploit innovative ideas.

In 1991, James March first defined exploration and exploitation. He labelled them as 2 situations involving the development and use of knowledge in organizations. Exploration denotes mutual learning in the organization, and is captured by things like search, variation, risk-taking, experimentation and discovery. Exploitation involves learning about competitive advantage in the market, and includes things like production, selection and implementation. It is impossible to have an innovative system with only 1 of these. As March notes, they are both crucial for innovation:

"Adaptive systems that engage in exploration to the exclusion of exploitation are likely to find that they suffer the costs of experimentation without gaining many of its benefits...Conversely, systems that engage in exploitation to the exclusion of exploration are likely to find themselves trapped in suboptimal stable equilibria"
(March, 1991: 71)

Rosing et al., (2011) bolster this view in their review and meta-analytical integration of existing literature on leadership and innovation. They explicate that the main requirement of innovative leaders is the ability to switch between effectively



Ambidextrous leadership and innovation in practice (adapted from Rosing et al 2011)

exploring and effectively exploiting ideas. They label this to be the 'ambidextrous theory of leadership': the ability to switch between exploring and exploiting in order to deal with the changing requirements of the innovation process. They argue that this comes more often from people who are behaviorally and cognitively complex:

"It is the temporal flexibility to adapt these behaviors to the requirements of the innovation tasks that is essential for ambidextrous leadership"
(Rosing et al., 2011: 967)

Their overview of this proposed model can be seen above:

The quality of 'ambidexterity', i.e. being able to both explore and exploit with equal ability, was recently tested by Zacher and Rosing (2015). They carried out a multi-source survey for 33 team leaders and 90 of their employees in architectural and interior design firms. Although a small sample size, the results supported the idea that ambidextrous leadership behaviours increased team innovation.

An important skill to be included within the transition between exploration and exploitation is selectiveness. The ability of a leader to recognize which ideas will flourish in practice, as opposed to the things which will not, is a very important skill when it comes to successful innovation.

Woermann-Seiger expanded on this, talking about the way in which leaders need to reflect on whether something is interesting or actually important because you "cannot take every ball that is flying towards you". There must be a smooth system for idea creation and implementation, as well as a review process for both products and for changes in the company more generally speaking. As an example, Woermann-Seiger references their bi-annual process in Global Human Resources of reflecting on long-term goals, where they think about what to prioritise and what to stop.

Bessant (2009) suggests that the process of selection is done by listening to customers, asking yourself what will help to achieve your goal as an organization, benchmarking for improvements in other companies and so on.

Of course, the incentive for being selective is that some new products and services, when exploited, will generate higher revenue. In 1903, Gabriel Tarde plotted the 'S-shaped diffusion curve', which maps growth of revenue against time. The idea is that the diffusion of new products and services is initially slower in terms of how much revenue it produces. But growing customer demand increases the revenue before it then inevitably declines.

Innovation which changes and updates the product allows continued growth. It is the ability to diffuse new, but also relevant and useful products and services which is important for

company growth. This idea was spoken about in greater depth in the sections on *Integrating Knowledge* and *Conceiving the Future Creatively*. The only way that leaders can endorse this change is by being adaptable themselves:

"If you do not change what you create and offer the world...you run the risk of being pushed aside by organizations that do. And if you want your business to grow, you are unlikely to achieve this if you do not offer new products and services in new ways"
(Bessant, 2009: 8)

The recent Harvard Business Review Article, *The Hard Truth About Innovation* (2019) has also recognized that there needs to be a balance between 'willingness to experiment' and being 'highly disciplined'. Without this discipline, almost anything can be justified as an experiment, which is unsustainable. It goes on to talk about how leaders need to have the ability to discern which project they need to terminate, even if they have championed them in the first place. Leaders must exhibit the ultimate flexibility and willingness to change their mind in the face of change and decision making.

Professor Gina Neff drew a parallel with Karl Weick's book *Sensemaking in Organizations*. The book looks at rapid response teams in various industries, such as movie sets or large-scale conferences, and one thing they all have in common is clarity of role. As Neff puts it: *"Leaders help to ensure that people know what their job is, and within that they have the ability to be adaptable and creative"*. Neff has highlighted here an important point: the ability of leaders to communicate both structure and freedom supports the balance of systematic exploitation with creative exploration.

PUT IT INTO ACTION

- Balance spontaneous decision making with maintaining long-term goals.
- Explore and exploit. Leaders need to be ambidextrous by establishing a process where ideas can be explored and also put into practice.

4. FAILING TO RISK AND RISKING FAILURE



"The big problem we face in managing innovation is: the fear of being a fool is often much stronger than the hope of being a genius" (Barnett, 2017)

Both personally and professionally, we should all aspire to fail from time to time. It is an essential part of the learning curve; it allows us to learn from our mistakes and build up stronger parameters for future endeavors. Far from the types of failure that result from poor process or incompetence, some failures come about through the process of putting new, exciting ideas to the test and stretching away from the norm. This risk of failure is a driver for innovation and so should not be avoided or perceived negatively.

Unfortunately, management, at least in the traditional sense, emphasizes minimizing risk and reducing variance in the system, particularly when the system they have in place is already working well.

Encouraging teams to be creative and to think outside the box, in order to come up with solutions, is an essential part of the innovative process. The price to be paid for this, however, is the occasional failure. Leaders must be prepared to accept failure and learn from it if they are aiming for true change.

In this last section we will examine what it means to fail and how this can be used productively and innovatively. This will be explored in 2 parts:

4.1. Resisting the 'tried and tested'

4.2. Celebrating and learning from failure

Ultimately, innovation can only come about through the bravery to risk failure and to resiliently persist until the best solution is found.

4.1. RESISTING THE 'TRIED AND TESTED'

It can be difficult as a leader to push yourself and your team to move away from your organizations tried and tested in terms of both products and processes. This occurs particularly if your organization has found success and your team is performing well.

Resisting the tried and tested often boils down to people's preference for familiarity and consensus. As leaders, this is often the culprit when it comes to discouraging innovation. As Barnett explores:

"[I]f we ask other people what we think of our idea, and they are all in agreement, we have a consensus idea. If they are not all in agreement, it is a non-consensus idea. To be innovative, you want to be in the right, non-consensus, box. If you're wrong, you just don't want to be alone, which is why most organizations go for consensus ideas"
(Barnett, 2017)

Sandra Westmöller shared with us during her interview that leaders must be willing to resist the tried and tested. They must continue to invest in ideas, especially when they are convinced that they will bring the company forward. In addition, a company needs to provide the best context for teams to shape the future of tomorrow:

"HELLA heavily invests in R&D. Some years ago, we took the decision to launch incubators, little groups, one in Silicon Valley and one in Berlin which both work hand-in-hand with the global start-up scene. They develop technologies, products or services with the short- or long-term potentials to completely disrupt the rules of the market"

This area requires an adventurous spirit, entrepreneurial risk-taking and a dynamic work organization: at HELLA Ventures Berlin, small business teams with flat hierarchies and short development cycles create the necessary agility for keeping pace with the increasing innovation speed of the automotive market. In order to allow for the required freedom here, HELLA has therefore separated these activities more strongly from its core business. There is the chance to get something really great. If you don't do it, you will never have the chance to be the first mover.

Here, we see that the pursuit of new ground, which is not necessarily tried and tested, has been important for the innovation of the organization.

Being the first mover and willing to risk change is something which Christensen (2016) found to be extremely difficult for organizations who are leading in their fields. This is why leading companies tend to fold when confronted with disruptive change. However, innovation is all about disruption, and so these companies need to be open to the risk that accompanies this. Christensen's investigation began with a simple question:

"[W]hy was it that firms that could be esteemed as aggressive, innovative, customer-sensitive organizations could ignore or attend belatedly to technological innovations with enormous strategic importance?" (Christensen, 2016: 24)

Importantly, he found that each of these organizations had once been very successful at finding new applications and markets for their products but had lost the ability by being "held captive" by their customers (ibid.).

By not remaining over-reliant on the tried and tested and opening up to celebrate failure as leaders, an innovative culture will start to embed.

4.2. CELEBRATING AND LEARNING FROM FAILURE

As mentioned previously, leaders should encourage and celebrate failure. Having said that, this does not mean that they should tolerate incompetence among their team. As explored in Gary Pisano's Harvard Business Review article *The Hard Truth About Innovative Cultures*:

“Exploring risky ideas that ultimately fail is fine, but mediocre technical skills, sloppy thinking, bad work habits, and poor management are not”
(Pisano, 2019)

He expands on that point by saying that the trick lies in differentiating uncertainty from poorly thought out design, lack of transparency and bad management. There are productive failures, which yield valuable information relative to their cost, and there are unproductive failures, which are just expensive flops (Pisano, 2019).

This was echoed by the Human Resources Director for an international company during our interview with them. They added that this risk taking should also be celebrated by leaders in terms of how we can learn from it:

“There clearly is something about creating an environment where it’s ok to fail. If it doesn’t come off, we need to celebrate the fact we’ve learnt from it. We also need leaders who are prepared to be challenged”

Several of our clients are focused on this already, including a Global Strategy Consultancy that asked us to work with them to develop a session for their high potentials on ‘Celebrating Failure’. They wanted their highest potentials to celebrate failures because this consultancy recognized that by creating spaces where it is safe to fail, they could also create spaces where their teams can innovate. After all, it is often the failures that make way for later successes.

Dr Sionade Robinson also shared similar thoughts. She stated that:

“Leaders should celebrate when people are being innovative and daring - the leaders’ role is to facilitate the team in this direction. Be encouraging when people are putting them into practice, and positively highlighting when people are prepared”

Robinson used the example of when, a couple of years ago, 55 MBA students went to climb a glacier in Iceland and 50 of them got to the summit. They had glorious conditions and a wonderful experience together full of mutual encouragement. The following year, a new group set off along the same route - 50 began

but this time only about 15 got to the top. By comparing themselves to the previous year, the second cohort experienced a sense of crushing disappointment that so few of them managed to get above the clouds and reach the summit.

When they reflected, they realized that they had set themselves the goal without any knowledge of the conditions nor any discussion as to how weather might impact their motivations or mean they should adjust their behavior. In the moment, they felt they had failed, but actually what they took from it was more enriching. They learned much more about themselves and how they responded to failing – a valuable lesson. It’s the way you look at it and what you learn that shapes your ability to be more resilient, more innovative and prepared next time.

Furthermore, Robinson shared with us that openness to learning from failure is a trait that is sought after in Angel investors and others who are investing in entrepreneurs:

“They want to see real people who have or can learn from and are open to failure. It brings credibility, it shows self-awareness, perseverance, and you learn resilience and adaptability. People are often not reflective enough to realize that something might not be perfect”

In their article on Leadership Innovation in McKinsey Quarterly, Barsh et al. (2008) similarly identified openness as one of the most important precursors to innovation and failing well:

“Managers and employees broadly agree about the attitudes, values, and behaviors that promote innovation. Topping the list, in our research, were openness to new ideas and a willingness to experiment and take risks. In an innovative culture, employees know that their ideas are valued and believe that it is safe to express and act on those ideas and to learn from failure”

Conversely, and as we explored earlier in greater detail, innovation is inhibited by a bureaucratic and hierarchical environment (ibid.).

The question becomes how leaders can challenge themselves and endeavour to systematize successful failure in their organization to maximize the potential of their team to fail well. In *The Innovator’s Dilemma*

Christensen also outlines a success framework of leaders to fail well. In his research, Christensen noted that leaders of firms who failed well:

- **Encourage disruptive projects.**
- **Plan early and inexpensive failure.**
- **Utilize organizational resources.**
- **Develop new markets. (Christensen, 2016: 99)**

Leaders who endorse the celebration of failure, and who encourage their teams to learn from this failure, are bound to be successful when it comes to innovation. As Thomas Edison said: *"I haven't failed. I've simply found 10,000 ways that do not work"*.

So, when innovating, perhaps remaining resilient through failure as a leader will ultimately lead to a lightbulb moment.

PUT IT INTO ACTION

- Resist the tried and tested by not always defaulting to consensus ideas.
- Celebrate and learn from failure, to create a constructive and resilient organizational culture.



CONCLUSION



In this research paper we have explored the relationship between innovation and leadership. We have examined this relationship through critical analysis of existing literature on the topic and through key points made during interviews which were conducted with 5 experts from industry and academia. This has highlighted how leaders can endorse and amplify an innovative culture in their organization.

Although every leader and every team work differently, we have looked at 4 ways in which leaders, along with their teams, can establish and embed a culture which will embrace and facilitates innovation:

1. CONCEIVING THE FUTURE CREATIVELY.

This includes:

- Creating an open culture through employing humor, high-energy and psychological safety. Demonstrating a leadership style which is both kinetic and supportive helps to lower hierarchies and foster an inclusive and equal atmosphere. As a result, teams feel safe to express their creative thoughts and ideas.
- Thinking of creativity practically. This combines divergent thinking and lateral thinking

regarding dilemmas both internal and external to the organization. Practical creativity balances thinking outside the box with a practical outlook, which helps organizations to innovate by addressing real-world problems with useful solutions.

- Perceiving constraints as opportunities in order to radically shift how your team approaches and solves problems.

2. INTEGRATING KNOWLEDGE.

This includes:

- Growing knowledge which demonstrates both breadth and depth. Depth of knowledge requires intimate knowledge of your customers, organization and areas of expertise. Breadth of knowledge entails being cognizant of what's around you, especially regarding competitors in the market.
- Collaborating both internally and externally. Internal collaboration is strengthened by diverse teams; this enlarges the pool of knowledge and ultimately makes ideas more resilient. Leaders should also aim to maximize connectivity within teams. External collaboration is also important for innovation. And it should establish a trusting environment through recognition and mutual understanding.

3. EMBODYING PARADOX

This includes:

- Balancing spontaneous decision making with maintaining long-term goals.
- Exploring and exploiting. Leaders need to be ambidextrous by establishing a process where ideas can be explored and also put into practice.

4. FAILING TO RISK AND RISKING FAILURE

This includes:

- Resisting the tried and tested by not always defaulting to consensus ideas.
- Celebrating and learning from failure, which creates a constructive and resilient organizational culture.

Leaders can catalyze an organizational system which helps employees to grasp innovative thoughts and behaviors. Importantly, this process should be iterative and continuous. Adapting to this environment is essential for organizations to survive. Ultimately, cultivating an innovative organizational culture enables organizations to drive change and achieve their potential.

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