

# Analysing a company's corporate entrepreneurship skills by applying three well-known entrepreneurship theories; Absorptive Capacity, the Burgelman model and Pavitt's Taxonomy

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**Abstract.** The phenomenon of corporate entrepreneurship is “the process by which individuals inside the organization pursue opportunities independent of the resources they currently control; this involves doing new things and departing from the customary to pursue opportunities”. This paper demonstrates the application of three entrepreneurship theories on a historically successful large corporation, and sheds light on some of the most important actions taken by the company management throughout the years to enhance their corporate entrepreneurship capabilities, and gives recommendations for future actions.

## INTRODUCTION

The phenomenon of corporate entrepreneurship is “the process by which individuals inside the organization pursue opportunities independent of the resources they currently control; this involves doing new things and departing from the customary to pursue opportunities. The spirit of entrepreneurship within an existing organization results in the creation of a new organization or in the development of renewal and innovation within that organization...” (Hisrich & Kearney, 2012) “The process by which teams within an established company conceive, foster, launch and manage a new business that is distinct from the parent company but leverages the parent's assets, market position, capabilities or other resources. It differs from corporate venture capital, which predominantly pursues financial investments in external companies. (Dahlskås, 2020; Wolcott & Lippitz, 2007) John Bean Manufacturing Company is a typical example of an entrepreneurial company that has gone through many cycles of entrepreneurship, and today one of the original divisions is

called TechnipFMC. (Dahlskås, 2020) TechnipFMC is a project-based organization in the Oil & Gas equipment industry and is a multinational company which employs more than 20,000 people across the globe. Last year their annual revenue was 6,726 million U.S. dollars (TechnipFMC U.K. Annual Report 2022), and in 2019 they ranked as number ten among all Oil & Gas equipment and service companies around the world, based on revenue according to Statista.com. (Statista.com, 2019) By applying the theory of absorptive capability, the Burgelman model and Pavitt's taxonomy, I am evaluating the company's current corporate entrepreneurship capabilities and give my future recommendations.

*My research question is; How well do TechnipFMC's current corporate entrepreneurship capabilities look compared to three well-established entrepreneurship theories?*

The rest of this paper is organized as follows; Theoretical background and setting, method, findings, discussion, and conclusion.

## **THEORETICAL BACKGROUND AND SETTING**

Management literature has been inconclusive when it comes to which factors that describes innovative firms, but there has been a general agreement that the size of the firm, the industrial sector it operates in and the country's environment, are important factors.

(Pavitt; 1984; Porter & Stern, 2001; Souitaris, 1999; Wolfe, 1994)

Only two decades ago, the challenge for companies were to cut costs, restructure and find new ways to enhance quality, but today, producing standardized products by using standard methods will not give the company a sustainable competitive advantage. Today, a company's ability to innovate is where the prize is. (Porter & Stern, 2001)

Absorptive capacity is a firm's ability to identify, absorb and transform external knowledge. It is about a firm's ability to learn and take advantage of information outside their own organization, (Cohen & Levinthal, 1990) where the Burgelman model on the other hand is a process model of internal corporate venturing in the diversified major firm. (Burgelman, 1983)

According to Porter and Stern, the location of innovation activities is crucial for a successful outcome. Much of it has to do with a country's innovation capacity, referring to fundamental factors like investments and policy choices. In this respect Porter and Stern has developed a framework for identifying innovative capacity which can be used at national level, regional level or even at a local level. The framework contains three different elements necessary for a location to innovate at a global frontier; cumulative technological sophistication, human capital and financial resources available for R&D activity, and resource commitments and policy choices, where important policy choices refer to tax-reduction on innovation activities, intellectual property

rights protection, and the nation's view on free trade and openness to the economy. In addition to this, cluster-specific environment for innovation, context for firm rivalry and strategy and related and supporting industries. A cluster-based innovation society means that there is an environment that supports innovation and that there are resources available, both human and financial. There will also be "local presence of related and supporting industries" that encourages local rivalry. It will also enable local suppliers and partners to get involved in the innovation process. Technological innovation clusters will create an environment of both collaboration and healthy competition between companies.

According to their study, the US and Switzerland are two of the most innovative countries in the world after Japan. But Sweden has been able to establish a region of top innovation the last few decades. Their study also shows that there has been established innovative environments outside the OECD as well. South Korea, Taiwan and Singapore have increased their innovation capacity significantly the last few decades and are resulting in a large increase in patenting rates. (Porter & Stern, 2001)

### ***Corporate entrepreneurship:***

Corporate entrepreneurship is referring to activities such as innovation, venturing, and strategic renewal within the existing firm. (Zahra, 1996) We often differentiate between three different views of corporate entrepreneurship: the economic view, the psychologist view, and the management view, where the economist view relates to the effects of corporate entrepreneurship, the psychologist view relates to the causes of entrepreneurship and the management view relates to the behaviour of entrepreneurs. The psychologist view sees entrepreneurship as individual traits that individuals are born with, but the management view – on the other hand – view entrepreneurship as something you

could learn. (Stevenson & Jarillo, 1990) The idea of corporate entrepreneurship was first introduced by Peterson and Berger in 1971, and was viewed as a strategy and leadership style adopted by large companies as a way of handling the volatile markets, they were operating in. (Peterson & Berger, 1971) But it was not before the early 1980s that corporate entrepreneurship became a separate research area through the works of Burgelman (1983), and through the publication of Pinchot's book on intrapreneurship (1985).

According to Morris et al., the authors of 'Corporate entrepreneurship & Innovation' entrepreneurship is essential "for companies to flourish and prosper". The challenge, they say, is for manager to create an environment internally of the company that supports innovation and creative thinking, in addition to supplying enough resources to support these ideas. (Morris, Kuratko & Covin, 2011) Not only are corporate entrepreneurship important to increase shareholders wealth, but it is also important to stimulate the economy it operates in. (Antoncic & Hisrich, 2004; Armbruster et al., 2008; Camisón & Villar-López, 2014; Cozzarin et al., 2017; Cozzarin, 2017; Mothe & NguyenThi, 2010; Schumpeter, 1934;) Corporate entrepreneurship as a way of stimulating economic growth has only got increased attention the last few decades. (Boukamcha, 2015; Turker & Selcuk, 2009) "Innovation is widely considered as the life blood of corporate survival and growth. Innovation represents the core renewal process in any organization. Unless it changes what, it offers the world and the way in which it creates and delivers those offerings it risks its survival and growth prospect". (Bessant et al. 2005 p. 1366) As Paul Krugman, the Nobel Prize winner in Economics wrote in his famous book *The Age of Diminishing Expectations*; "Productivity isn't everything, but in the long run it is almost everything. A country's ability to improve

its standard of living over time depends almost entirely on its ability to raise its output per worker" (Dahlskås, 2020; Kruger, 1997)

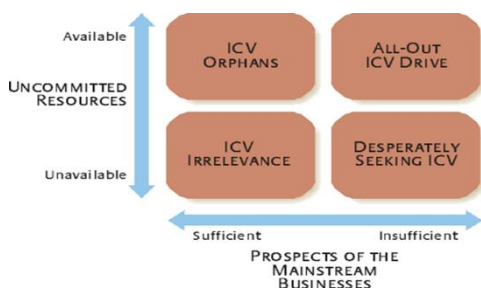
#### ***Absorptive capacity (ACAP):***

Absorptive capacity – ACAP – relates to a firm's ability to recognize the value of new, external information and the ability of the firm to apply this information in commercial terms. (Zahra & George, 2002) According to a study conducted by Cohen and Levinthal (1990) a firm's absorptive capability is strongly connected to innovation capabilities and successful innovation processes. Often, a firm's success is dependent on its ability to collect and implement new information. (Cohen & Levinthal, 1990) Cohen and Levinthal argue that early investment in R&D activities contributes positively to a firm's absorptive capacity; The ability to exploit external knowledge is thus a critical component of innovation capabilities". (Cohen & Levinthal, 1990) Absorptive capacity can occur on both corporate level and individual level (Da Silva & Davis, 2011) and absorptive capacity is related to a firm's or an individual's ability to recognize the value of new, external information and the ability of the firm or individual to apply this information in commercial terms. But to be able to exploit this external knowledge the individual and/or the organization must have some level of prior knowledge. At the minimum level, this prior knowledge can refer to basic skills as a shared language, but it may also include more sophisticated knowledge, as the latest knowledge of recent scientific or technological developments in a certain field. And according to Cohen and Levinthal, this prior knowledge will be essential for the individual and/or the organization to recognize the value of new information. (Dahlskås, 2020; Cohen & Levinthal, 1990)

**Burgelman model:**

Burgelman’s model of strategy making views an organization as ‘an ecology of strategic initiatives that emerge in patterned way’. (Burgelman, 1983, 1991 p.240) According to Burgelman’s model there are two things you can do: initiatives that are related to a company’s current strategy or initiatives that falls outside the company’s current strategy. Initiatives that fall outside a company’s current strategy are often a result of decisions made by managers at different levels of the organization. The model is based on available resources and the core strategy of a company. (Burgelman, 1983; Dahlskås, 2020; Hisrich & Kearney, 2012)

**Burgelman model:**



SOURCE: Adapted from R.A. Burgelman, "Corporate Entrepreneurship and Strategic Management: Insights From a Process Study," Management Science 29, no. 12 (December 1983): 1349-1365, and R.A. Burgelman, "Strategy Is Destiny: How Strategy-Making Shapes a Company's Future" (New York: Free Press, 2002).

**Pavitt’s taxonomy:**

In 1984 Pavitt introduced a simple and practical framework where he divided firms into four different classifications; supplier dominated firms, scale intensive firms, specialized suppliers, and science-based firms. (Pavitt, 1984) In 1997 Tidd, Bessant and Pavitt introduced a fifth class – information intensive firms – which mainly includes service industries like retailing, finance, and software. (Souitaris, 2002; Tidd & Bessant, 2013 p. 196)

**Pavitt’s taxonomy (including the fifth class):**

(Source: Carpasso & Rybalka, 2022)

Classification	Examples of firms
<i>Supplier-dominated (SD) firms</i>	Includes industries where firms mostly produce technological simple goods.
<i>Scale-intensive (SI) firms</i>	Includes both complex and consumer durables (food, chemicals, motor vehicles) and processed raw materials (e.g., metal manufacturing, glass and cement).
<i>Specialized suppliers (SS)</i>	Includes equipment building, design, and mechanical engineering, where innovation typically emerges from informal activities.
<i>Science-based (SB) firms</i>	Includes industries where innovation is linked directly to advances in academic research (e.g., pharmaceuticals, electronics, scientific instruments).
<i>Information-based (IB) firms</i>	Includes industries such as telecom, internet-based firms.

### ***History of TechnipFMC:***

John Bean Manufacturing Company is an American multinational company that was established in 1883. John Bean and his son invented an injection of insecticide, and sold their invention to an investor, but in 1904 they established Bean Spray Pump Company. In 1928 they were trading on the stock market under the name John Bean Manufacturing Company, and in 1943 they started to sell chemical substances. In 1948 they changed their name to Food Machinery Chemical Corporation, and in 2000 FMC announced that they were planning to restructure themselves as two distinct business entities, a machinery business (FMC Technologies) and a chemical business (FMC Corporation). In 2008, FMC Technologies was again separated into two distinct businesses, one operating in the oil & gas equipment industry – FMC Technologies – and one in the FoodTech and Airport business – JBT Corporation. (Dahlskås, 2020; FMC.com) Before the oil crisis began back in 2014, Technip and FMC Technologies were two separate companies, but in May 2016 the two companies decided to combine through a merger of equals to create a global leader. (TechnipFMC U.K. Annual Report 2019) Their headquarters are in London, U.K., Houston, TX, and Paris, France, but the company has offices and sites all over the world. (TechnipFMC.com)

TechnipFMC is a global leader in their field, according to their website. They believe in innovation and smarter design, and they offer a wide range of individual products and services so that they can deliver fully integrated solutions. They reinvent technologies, processes, and approaches for greater efficiency. (TechnipFMC.com)

Recently TechnipFMC have been further divided into two distinct business entities, one operating in the Green Chemistry Industry and one in the same industry as before – the oil & gas equipment industry.

(Investor Relation Overview, 2022) Both FMC Corporation and JBT Corporation are still existing and trading in the stock market, in addition to TechnipFMC (FMC.com, JBTC.com; TechnipFMC.com)

### **METHOD**

I have chosen three well-established theories within the area of corporate entrepreneurship to conduct my preferred research.

I have built the research paper in a both historical and thematic manner and take the role as a critical theorist analyst in the process. I have read, investigated and analysed published materials and existing literature that would help me find answers to my research question. (Olsen, 2007; Rata, 2014; Durkheim, 1982; Steinberg & Kincheloe, 2010)

The methodology is a critical, empirically and historically oriented appropriation, and as a consequence locate actors “within more encompassing structural settings of relations of power and control (Forester, 1985).” (Morrow & Brown, 1994 p.24)

According to C.R. Kothari “in analytical research the researcher has to use facts or information already available and analyse these to make a critical evaluation of the material”. (Kothari, 2004 p.3).

Since my topic of interest is broad and there are numerous sources to build upon, I have concentrated my research on highly recognized researchers and their contribution to the field. I have used peer-reviewed journals, books and interviews, in addition to other relevant material in the chosen topic. I have used google scholar in this approach and relevant key words has been such as corporate entrepreneurship, corporate entrepreneurship theories, entrepreneurship, innovation etc.

My research strategy has been to read, investigate and analyse relevant historical data before linking it to the objectives (the three theories).

## FINDINGS

### *Applying the theory of absorptive capacity:*

We can see examples of JBMC absorptive capacities by how well they have been able to adapt to changes in the marketplace. By recognizing these changes, being able to transform them, and exploit them, tells us that JBMC has a high degree of absorptive capacity. (FMC.com, TechnipFMC.com)

### *Examples of John Bean Machinery Corporation absorptive capacity:*

1. By using their absorptive capacities, by knowing what their customer wanted, John Bean Manufacturing Company was trading on the stock market in 1928. (FMC.com)
2. In 1948 John Bean Manufacturing Company changed their name to Food Machinery Chemical Corporation and they were also selling chemical substances, again, a clear indication to their absorptive capabilities and their ability to take advantage of what the market wanted at the time. (FMC.com)
3. In 2000 the Food Machinery Chemical Corporation became two distinct companies – FMC Technologies and FMC Corporation. FMC Technologies was established to supply the oil & gas equipment industry and FMC Corporation was going to continue as before. Again, this shows us clear absorptive capacities since FMC Technologies and FMC Corporation has both been very successful entities. (FMC.com, technipFMC.com)
4. In 2016 FMC Technologies formed a merger with Technip to become a global leader in their field and according to Statista.com the company is the 10th biggest oil & gas equipment company in the world, based on revenue. (Statista.com, 2019) Again, a clear sign of absorptive capacity.
5. TechnipFMC is planning to divide the company further into two distinct entities –

TechnipFMC and Technip Energies. TechnipFMC will continue as before, and Technip Energies will be operating in the Green Chemistry industry. (TechnipFMC UK Annual Report, 2022) Another great example of their absorptive capacity, taking advantage of the green shift we currently are experiencing. (Dahlskås, 2020)

### *Applying the Burgelman model:*

Internal corporate venturing, ICV, is like seasons, where ICV “programs begin and end in an endless cycle”. (Burgelman & Välikangas, 2005) Even though they describe many ICV initiatives as unsuccessful, and rather harmful to the business and the people involved, it seems like the JBMC has managed to succeed in most of its ICV initiatives. As we remember, the Johan Bean Manufacturing Company started off as one company or entity but has since then been separated and joined with other companies. (FMC.com, JBT.com; TechnipFMC) As for the latest TechnipFMC ICV project, where the plan is to divide the company further into two distinct businesses, TechnipFMC and Technip Energies, to be able to compete in the emerging green energy markets, it had to be put on hold due to the lack of resources. (TechnipFMC UK Annual Report, 2020) The plan was to capitalize their ICV Orphans from revenue gained by TechnipFMC operations, but because of the pandemic the world recently has been experiencing the resources are no longer available. (TechnipFMC Annual Report, 2022)

We know that the oil & gas industry has entered what we refer to as the maturing phase and that companies operating in the industry are dependent on ICV Orphans for future survival. (Planete energies.com) If we take a look at TechnipFMC we could say that they are finding themselves somewhere between “desperately seeking ICV” and “all-out ICV drive”, and it all depends on the resources available. (Dahlskås, 2020)

### ***Applying Pavitt's taxonomy:***

Based on the framework introduced by Pavitt in 1984 we can establish that TechnipFMC belongs to *the Scale intensive firms-classification* and to the underlying group of *large-scale producers*. According to Pavitt's framework large scale producers are generally big, and they produce a high degree of their process technologies and devote a high proportion of their resources to maintain this. They often have a high level of vertical technological diversification and have equipment concerned with their own process technology and they usually deliver relatively high level of innovation regarding products produced in their sector. They will also try to differentiate through best practice in design, production, and distribution. Cost-efficiency is often a main strategy for companies belonging in this trajectory, in addition integration of new knowledge. (Pavitt, 1984; Souitaris, 2002; Tidd & Bessant, 2013, p. 196)

### **DISCUSSION**

TechnipFMC's innovation activities are often done "in collaboration with clients and partners and this of course is to develop leading products and technologies that deliver greater efficiency to the client, lower development cost, to unlock stranded and/or marginal fields, and enable frontier developments. TechnipFMC's alliance partners are Shell, Equinor, BP, ConocoPhillips, among others. (TechnipFMC 2022 UK Annual Report; Investor Relation Overview, 2022)

Everyone of their "20,000 employees are driven by a steady commitment to clients and a culture of purposeful innovation, challenging industry conventions, and rethinking how the best results are achieved". (TechnipFMC.com) February 7, 2019, TechnipFMC signed a renewal of their strategic partnership agreement for innovation and technology development with the French Alternative Energies and

Atomic Energy Commitment (CEA). They have been collaborating since 2011 and have now signed a new deal for another 5-year period.

*TechnipFMC's aim is to strengthen the competitiveness of its business through the transfer and adoption of new technologies.*  
(TechnipFMC.com)

TechnipFMC also see themselves as well-positioned for the energy transition the world is experiencing. Gas will play a fundamental role in this transition, but the transition requires infrastructure. They also see themselves equipped to take on the Green Chemistry industry, which includes biological components as biofuels biopolymers, circular chemistry, which means turning plastic waste to fuel, and brown to green chemistry, which means hydrogens to chemicals. The market for Green Chemistry is expected to triple over the next ten years. By entering into these new markets, the company will be split in two, the former TechnipFMC will continue as before, and Technip Energies, the new business, will capitalize on operational performance in TechnipFMC and will take advantage of opportunities in the green chemistry and biofuel markets, and other alternative energy markets. (Investor Relation Overview, 2020) At the all-hands meeting on September 25th, TechnipFMC stated that they will continue to focus on new technology, but also on how they might improve organizational structures going forward. Their main focus will be cost control – as it has been since the oil crisis in 2014 – but the importance of keeping a good relationship with their clients will be crucial at this point. (TechnipFMC company presentation September 2022)

TechnipFMC's R&D innovation activities are located in different sites for different products. Their Umbilical Hub – which is a center of excellence for R&D and umbilical testing – is located in Newcastle, UK, Channelview, TX and Lobito, Angola,

where Newcastle, UK, is the world's most capable steel tube umbilical assembly facility, according to TechnipFMC. They also have an innovative product operations group located in Rio de Janeiro, Brazil. And in Houston, TX, they have an innovative learning and knowledge management center, and they also have knowledge specialists working in Norway at the Kongsberg site. (TechnipFMC.com)

As Tidd points out in his book *Open Innovation Research, Management and Practice*, "research has shown that patterns of innovation differ fundamentally by sector, firm and strategy", and continue to differentiate between "the number and types of partners and the phases of the innovation process which are "opened" to external contribution" and divides the companies into four different groups; closed innovators, open innovators, specialized innovators and integrated innovators. To make an open innovation approach successful is also dependent on the "right conditions", such as company strategy, capabilities, organizational factors etc. they add. (Tidd, 2013 p. 15-17)

It is difficult for an outsider to establish exactly which of the different groups mentioned by Tidd in *Open Innovation Research, Management and Practice*, they belong to, but we do know that they have R&D and innovation facilities all around the world, and therefore supporting a global innovation process. (Tidd, 2013)

As we know by the framework introduced by Porter and Stern, the resources, both human and financial resources, in addition to knowledge are absolutely necessary attributes for innovation to thrive. (Porter & Stern, 2001; Orlando & Verba, 2005) We know that TechnipFMC has signed a renewal of their strategic partnership agreement for innovation and technology development with the French Alternative Energies and Atomic Energy Commitment (CEA), and that "TechnipFMC's aim is to strengthen the competitiveness of its

business through the transfer and adoption of new technologies". (TechnipFMC.com)

We also know that TechnipFMC is one of the most successful companies in the Oil & Gas equipment industry (Statista.com, 2019) so everything is indicating that they are doing something right. From what we know about their location of innovation activities, they are located in Newcastle, U.K., Channelview, TX, Lobito, Angola and Rio de Janeiro, Brazil. They also have a learning and knowledge center in Houston, TX, and a few employees in Kongsberg, Norway, connected to this department. (TechnipFMC.com)

So, let us analyse this from Porter and Stern's perspective. According to them the best environment for innovation today is in Japan, U.S.A and Switzerland, and that Sweden is not far behind. (2001) They are also saying that innovation activities should be located where there are both human and financial resources. There should also be technological superiority connected to the location, in addition the nation's policy towards innovation capacity and IP rights. (Porter & Stern, 2001)

### ***So, why is TechnipFMC innovation activities located in the U.K., Angola, and Brazil?***

According to CNN Business, institutional investors hold the majority of ownership of TechnipFMC through the 77,23% outstanding shares that they control. The dividends are also higher than for almost any other company in the oil & gas equipment industry. (CNN Business.com)



**Top 10 Owners of TechnipFMC PLC**

Stockholder	Stake	Shares owned	Total value (\$)	Shares bought / sold	Total change
T. Rowe Price Associates, Inc. (I...	13.33%	58,933,447	806,798,889	+5,888,998	+11.10%
Fidelity Management & Research Co...	7.66%	33,855,529	463,482,192	-5,542,680	-14.07%
Columbia Management Investment Ad...	4.34%	19,194,802	262,776,839	-2,038,946	-9.60%
Dimensional Fund Advisors LP	4.21%	18,625,462	254,982,849	-849,023	-4.36%
Hardman Johnston Global Advisors ...	4.02%	17,771,946	243,297,941	-772,778	-4.17%
Capital Research & Management Co....	3.84%	16,990,581	232,601,054	+6,402	+0.04%
JPMorgan Investment Management, L...	3.78%	16,719,317	228,887,450	+16,716,879	+685,680.02%
William Blair Investment Manageme...	3.40%	15,029,511	205,754,008	-6,856,250	-31.33%
Van Eck Associates Corp.	2.47%	10,919,212	149,484,012	+1,564,453	+16.72%
T. Rowe Price Investment Manageme...	2.12%	9,360,649	128,147,285	-6,422	-0.07%

(Source: CNN Business)

**Top 10 Mutual Funds Holding TechnipFMC PLC**

Mutual fund	Stake	Shares owned	Total value (\$)	Shares bought / sold	Total change
T Rowe Price Mid Cap Value Fund	3.74%	16,536,731	226,387,847	-9,119,995	-35.55%
Caisse de dépôt et placement du Q...	3.49%	15,445,620	211,450,538	+5,550,500	+56.09%
VanEck Oil Services ETF	1.67%	7,395,750	101,247,818	-93,784	-1.25%
Fidelity Small Cap Value Fund	1.63%	7,200,000	98,568,000	-1,800,000	-20.00%
T Rowe Price Small Cap Value Fund	1.46%	6,447,893	88,271,655	-12,500	-0.19%
American Funds International Grow...	1.45%	6,402,175	87,645,776	-1,943,475	-23.29%
Vanguard Extended Market Index Fu...	1.38%	6,121,104	83,797,914	+15,791	+0.26%
T. Rowe Price All-Cap Opportuniti...	1.22%	5,377,237	73,614,375	+1,442,960	+36.68%
Franklin Small Cap Value Fund	1.20%	5,295,803	72,499,543	+563,707	+11.91%
JPMorgan Growth Advantage Fund	1.17%	5,155,863	70,583,764	+1,315,070	+34.24%

(Source: CNN Business)

If we take a look at TechnipFMC’s largest investors, all of them are funds, and all of the funds are located in the US, meaning that, according to Porter and Stern this location would be the best fit regards to financial resources. (Porter & Stern, 2001)

**What about technological sophistication and human capital/knowledge?**

According to Global Finance the most technologically advanced countries in the world in 2022 are (by ranking1-10); South Korea, United States, Denmark, Switzerland, Sweden, Taiwan, Japan, Netherlands, Finland and Israel. The study is based on four different metrics. The first one being the proportion of the population using the internet, the second one being the percentage of the population using a

smartphone, the third one being percentage of LTE users of the population, and the fourth being digital competitiveness score, which focuses on technological knowledge, new technologies, and the ability and to exploit and build on new innovations. (Getzoff, 2020) According to Porter and Stern’s framework, TechnipFMC’s innovation activities should be located in either South Korea or the US, not the U.K., Angola and Brazil, as they currently are.

We must not forget the important factors as tax-reduction and IP rights. Tax-reduction on innovation activities is complex and should be investigated further, but it would give us additional information, and maybe shed some light to why the locations are where they are today. I have heard, but it has not been confirmed, that TechnipFMC is planning to have an innovation location in Kongsberg, Norway. This would make a lot of sense, not only have TechnipFMC a site in Kongsberg, but Kongsberg is also one of the largest technological clusters in Norway. (Kongsberg.no) Not only will they draw on Norway’s competencies (being #12 on the list of the most technological advanced countries in the world (Global Finance ranking 2022) and #1 in the same ranking in 2020), but they would also be able to create an environment of both collaboration and healthy competition, as pointed out by Porter and Stern. (Porter & Stern, 2001)

As we know, innovation improves economic performance and that higher rates of innovation usually are associated with higher rates of productivity growth. The higher the productivity growth is in a society, the higher the standard of living will be for the population in the country. (Orlando & Verba, 2005)

I have established the company under the scale intensive firm-classification and to the underlying group of large-scale producers in Pavitt’s taxonomy.

Firms in this classification often have a high level of vertical technological diversification and have equipment concerned with their own process technology and they usually deliver relatively high level of innovation regarding products produced in their sector. They will also try to differentiate through best practice in design, production, and distribution. Cost-efficiency is often a main strategy for companies belonging in this trajectory, in addition integration of new knowledge. (Pavitt, 1984; Souitaris, 2002; Tidd & Bessant, 2013, p. 196)

It was intriguing to see that Porter's and Stern's study from 2001, focusing on innovative countries, were so aligned with the countries that are perceived to be the most technological advanced countries today. According to Porter and Stern's study the US and Switzerland were the two of the most innovative countries in the world after Japan, and that Sweden had been able to establish a region of top innovation the last few decades when the study was conducted. Their study also showed that South Korea, Taiwan and Singapore have increased their innovation capacity significantly the last few decades and are resulting in a large increase in patenting rates. (Porter & Stern, 2001) The most technological advanced countries in the world today according to Global Finance the most technologically advanced countries in the world in 2022 are (by ranking 1-10); South Korea, United States, Denmark, Switzerland, Sweden, Taiwan, Japan, Netherlands, Finland and Israel.

The competition in the Oil & Gas equipment industry is fierce, but TechnipFMC has proven itself to be a market leader, (TechnipFMC.com; Statista.com, 2019) but it is crucial for the industry and the country the company operates in, to find alternative sources of income in the future, especially now as many of the oil fields are entering a maturity phase. (Planete energies.com)

Not only has the industry recently been through the oil crisis that occurred in 2014, but they also had to deal with the consequences of Covid-19. Despite of that, TechnipFMC is doing everything it can to find new ways to thrive through innovation. (Investor Relation Overview, 2022)

## CONCLUSION

In this paper I have used three well-known entrepreneurship theories while analysing a firms corporate entrepreneurship capability.

This paper demonstrates the application of these three entrepreneurship theories on a historically successful large corporation, and sheds light on some of the most important actions taken by the company management through the years.

There is no doubt that absorptive capacities are crucial to a company's success, and we saw clear evidence of the importance of acceptance of risk and failure to be able to succeed in the ventures carried out by the JBMC throughout the years. The company started up as a small family business and have managed to diversify and grow into one of the largest oil & gas equipment companies in the world, which is clear evidence of many of its ICV initiatives being successful, but there is some dividedness between theory and practice when it comes to innovation activities in the company. My recommendations for future research would therefore be to take a closer look at the location of TechnipFMC's innovation activities. Today their innovation activities are located in the UK, Angola and Brazil, but according to Porter and Stern these activities should be located Japan, the US or Switzerland, because of the innovation environment. Another important factor, besides human knowledge, according to Porter and Stern are the financial resources, and as we can see from the list of the top largest owners of the company, all of them are American funds, telling us

that, according to Porter and Stern's reasoning, the US should be the place innovation activities, and not the UK, Angola or Brazil.

I have used existing data for my research, but to get a ticker picture of the issue at hand I would recommend a qualitative approach involving interviews with company personnel.

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