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A Case Study of NOMA in the CCF Framework

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Abstract

This study examines Restaurant Noma, an experimental organization where creativity and innovation are integral to its long-term sustainability. Using the Career Capital Factory (CCF) framework, the research analyzes the career capital development strategies of Noma's chefs, highlighting both the strengths and limitations of these practices. The findings suggest that in creative organizations like Noma, career capital development is predominantly driven by the individual. Moreover, for sustainable career growth, the establishment of a collaborative career development system and the assurance of stable income are critical. The study concludes that while fostering career capital is essential, organizations must also provide continuous opportunities to nurture and sustain this capital within their structure.

Keywords:

Noma, Career Capital, Career Capital Factory, Sustainability

Noma and People

"I feel surrounded by constant discoveries and growth opportunities.
Working here, interacting with brilliant people from all over the world, and receiving input from Rene and other staff members, is something I could never experience anywhere else.
It drives me to aim higher."

– Junichi Takahashi, Head of Test Kitchen at Noma

"I think the desire to challenge myself was a big part of why I joined.
Noma moves quickly and works on diverse projects, which makes it different from a traditional restaurant."

"At Noma, it feels like you are utilizing all resources,
and the energy of always staying ahead is truly inspiring."

– Risa Kamio, Project Manager & Executive Assistant at Noma

In creative industries, the experience of creators is reflected in the diverse range of their work. As such, managing creators' experiences—such as the development of career capital—becomes a critical factor in enhancing the competitiveness of creative organizations. Career capital refers to the accumulation of resources that support an individual's career development. However, a key question arises regarding whether creativity can be transformed into a sustainable resource within

experimental organizations, which prioritize research and development. Previous research on career capital in creative organizations includes the CCF (Career Capital Factory) framework, which has been applied to analyze the career capital development of Asian creators (Kim, 2023). Building on Kim's work, this study aims to cross-industry analyze the differences in career capital development strategies employed by chefs in the culinary industry.

Noma, an innovative restaurant recognized for its global diversification, diverse menu, and strong international performance, was selected as a case study. It is part of the "Best of the Best" group, which includes restaurants that have consistently ranked at the top of The World's 50 Best Restaurants list. Noma is known for its pure ingredients, adventurous spirit, communication, and experimental approach to gastronomy. The goal of this study is to examine the career capital development methods and limitations within Noma, a creative organization.

The research begins with the question: "Can a chef's creative endeavors lead to sustained productivity and the development of career capital within the organization?" This inquiry explores whether Noma has established an organizational structure that sustains the creativity of its chefs. The two key propositions of this study are as follows:

Proposition 1 : *Is the Career Capital Factory (CCF) framework, designed to cultivate career capital, applicable within Noma's organizational context?*

Proposition 2 : *Can Noma ensure the sustainability of career capital development within its organizational structure?*

The main contributions of this paper are two folds. First, the application of the CCF framework, originally developed for drama production companies, to the restaurant industry.

Second, the demonstration that the CCF framework can be used to assess the sustainability of career capital, providing a means to evaluate its long-term development within creative organizations.

This research aims to reveal that while innovation-driven, research-focused organizations may appear creative in terms of their human resources and products, the key to sustaining creativity and adaptability lies not in the continuous development of new ideas through external resources, but in strengthening the organization's ability to absorb and act upon these ideas effectively.

Career Capital

Career capital, a concept introduced by DeFillippi and Arthur (1994), is essential for understanding the unique skills and experiences that knowledge workers, particularly in creative industries, accumulate over time. It encompasses three core elements: "Knowing-whom" (networking), "Knowing-why" (identity), and "Knowing-how" (skills). These elements enable individuals to transform their professional attributes into valuable assets, which can be leveraged across various contexts and roles. Career capital is considered portable, offering individuals the flexibility to adapt and excel in diverse professional environments.

However, securing top-tier human resources does not universally guarantee the acquisition of career capital for every organization. Dickmann (2018) notes the limitations of the "knowing-whom", as individuals often face constraints on how much they can network and cultivate meaningful relationships. Furthermore, Yamada and Yamashita (2013) explore how relational aspects—especially in creative industries—play a crucial role in acquiring career capital. Their research underscores the importance of establishing irreplaceable networks, which provide a competitive edge, a concept they define as "career solidarity."

Despite these relational dynamics, Lee et al. (2021) suggest that acquiring rational career capital is feasible, even when overcoming the limitations of human resources and network-driven constraints. Traditionally, chefs were described as employees who worked under high pressure, confined by established recipes. Yet, over time, chefs have been increasingly recognized as creative innovators whose work generates symbolic value (Svejenova et al., 2015). As the culinary industry becomes more creative, managerial focus should shift from merely developing innovative menus to providing chefs with continuous opportunities to cultivate their personal career capital.

However, despite this shift, perspectives on chefs within the hospitality management sector remain underdeveloped. Research on leadership in chef competency development (Marinakou, 2020) and the Star-Chef Competency Model (Suhairom et al., 2019) primarily focus on individual competencies. However, studies that propose a framework for career capital development at the organizational level remain limited.

Creativity Development Framework

Bilton (2007) and Csikszentmihalyi (1999) have highlighted the importance of adopting a system perspective in fostering creativity. This system approach integrates creativity into organizational culture and structure. One framework that supports this perspective is the MARKORG framework, proposed by Moorman & Day (2016), which identifies four key organizational elements: culture, capability, human resources (leaders and employees), and configuration (including matrices, incentives, structure).

This framework emphasizes the critical role that human resources and structure play in driving market orientation and productivity, particularly in the context of creative industries like drama production.

Building upon this, DeFillippi and Arthur (1994) discuss the role of career capital in nurturing creativity. They outline three stages of career capital development: "Knowing-whom" (networking), "Knowing-why" (identity), and "Knowing-how" (skills). These stages highlight the importance of industry reputation, identity, and expertise in developing a creative career that ultimately enhances an individual's competitive edge.

Further expanding on this, Yamashita and Yamada (2010) introduce the Career Capital Pyramid Model, which explains the hierarchical development of career capital. Early career stages focus on building networks (Knowing-whom), mid-career stages revolve around establishing professional values (Knowing-why), and late-career stages emphasize leveraging accumulated knowledge to recognize one’s strengths (Knowing-how). This model underscores the importance of accumulating career capital sequentially and hierarchically through experience.

Kim (2023), in a study of South Korean drama producers, highlights that career capital opportunities are primarily granted by organizations, rather than being initiated by individuals. The study argues that organizations create these opportunities through structures that facilitate the mass production of dramas. By securing production channels, organizations internalize top-tier human resources and provide the networks necessary for employees to build competitive connections. Kim (2023) further suggests that organizations, through a producer-centric structure, develop unique genres and enhance producers' "knowing-how" (genre expertise). The study emphasizes that career capital opportunities provided by organizations enable individuals to

rapidly advance, with organizations addressing and accelerating career development processes much like a factory. This phenomenon is defined as the "Career Capital Factory," where organizations systematically foster and expedite individual career growth.

Sustainability of Creative Organizations

The sustainability of creative organizations has received increasing attention, particularly in industries that rely on constant innovation. However, much of the existing research focuses on the relationship between organizational culture and productivity enhancement (Assoratgoon & Kantabutra, 2023). Understanding sustainability, especially within the creative sector, requires a shift toward long-term organizational strategies that emphasize collective learning and innovation. Jeong & Shin (2019) explain that organizations that prioritize collective learning harness creativity by encouraging interactions among employees and leveraging their diverse networks and ideas.

Organizations that foster collective creativity can generate novel solutions and approaches, which are essential for sustained success (Gilson & Shalley, 2004; Gundry et al., 1994). Furthermore, investing in talent and aligning resources with long-term career strategies are key to ensuring that creative organizations maintain a competitive advantage (Latzke et al., 2015).

A notable example of collective creativity is Pixar, a leader in the field of CG animation. At Pixar, creative leadership does not rely solely on individual ideas; instead, all members of the production team—comprising 200-250 individuals—contribute to the ideation process. The company resists the tendency of management to minimize risks and believes that the key to maintaining creativity is the ability to recover from failure through a talented workforce (Catmull, 2008).

Marion (2012) argues that when employee interaction and participation are encouraged, more ideas are generated, enhancing organizational creativity. Cameron & Quinn (1999) support this notion, suggesting that organizational learning is most effective when infrastructure and managerial support are in place. Their research also emphasizes the need for organizations to integrate internal resources to enhance innovation capabilities and achieve superior organizational performance.

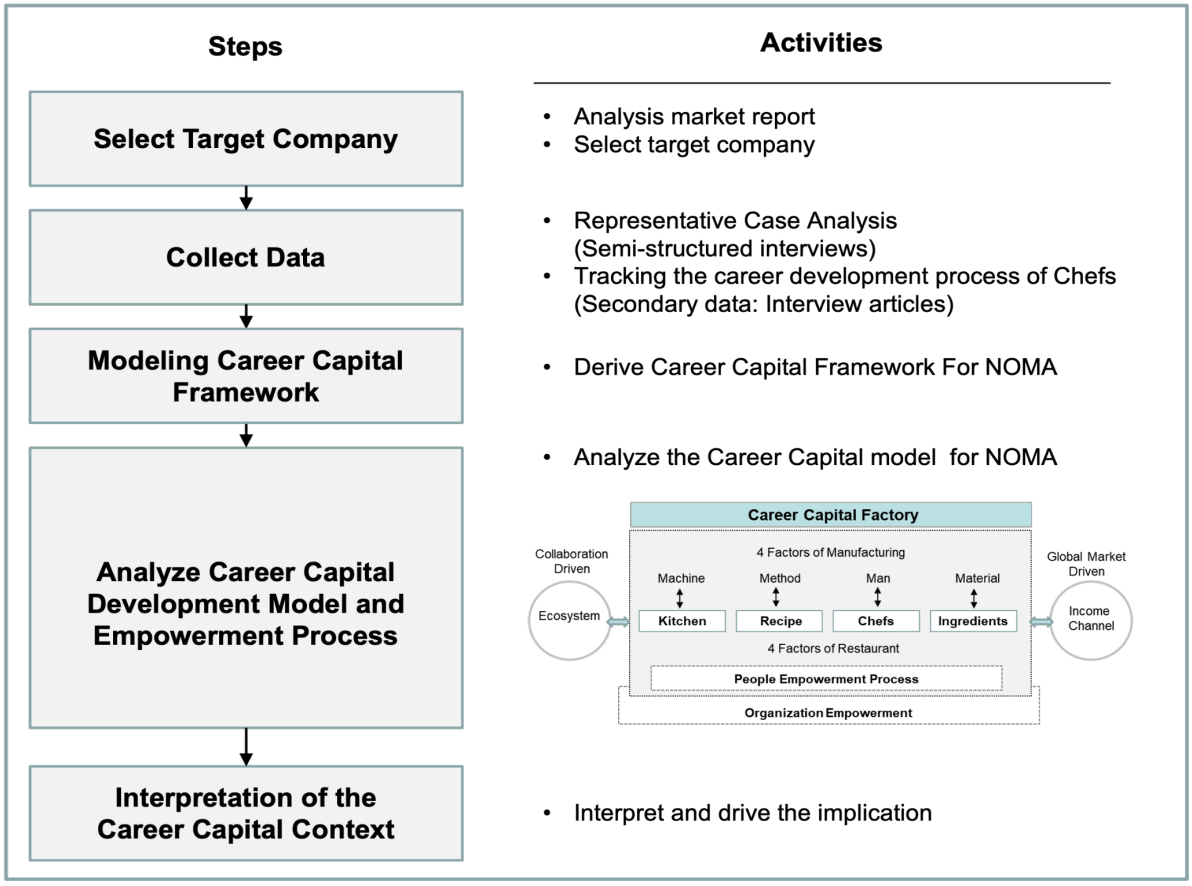
The synthesis of these studies highlights that successful creative organizations depend heavily on human capital and the effective management of career capital. For industries like high-end restaurants, which focus on innovation and artistry, failing to provide continuous opportunities for chefs to develop their career capital may jeopardize the long-term sustainability of their operations.

METHODS

The research method is structured in four key steps: case study selection, semi-structured interviews, modeling of the career capital framework, and analysis of the Career Capital Factory (CCF) model as shown below Figure 1.

FIGURE 1

Overview of Approach and Key Activities



Source: Compiled by the author.

First Step: Select Target Company

Noma was selected as the case study for this research due to its global reputation, innovative menu, and consistent international success. Noma is part of the prestigious "Best of the Best" group, which includes restaurants that have ranked first in *The World's 50 Best Restaurants* list over the years. This group is composed of restaurants that have topped the annual ranking throughout its history, making Noma an exemplary model for analyzing organizational career capital development.

Second Step: Collect Data

Semi-structured interviews were conducted with two employees of Noma to investigate the career capital development process within the organization. In addition to the interviews, secondary data was collected during a crucial period: two weeks before Noma's closure, marking the final phase of Noma 2.0. This period provided an ideal opportunity to gather comprehensive insights from Noma's employees, as it allowed them to reflect on their career trajectories and experiences over time.

The selection of interviewees was aimed at capturing both subjective and objective insights. The interviewees were chosen to represent different perspectives: one from the chef's viewpoint, and another from a long-term observer who had worked with the chef at an executive management level. The interviews were conducted in person, and open-ended questions were utilized to ensure a thorough exploration of the research questions. Below is an overview of the interview process:

Interviewee 1: Noma Employee, Head Chef of Test Kitchen (Approx. 13 years at Noma)

Interviewee 2: Noma Employee, Project Manager & Executive Assistant (Approx. 10 years at Noma)

The interviews took place from December 2 to December 18, coinciding with the final days of Noma Kyoto's operations. The interviews were conducted in Noma Kyoto, guided by a structured interview sheet, which is included in Appendix 1.

The interview structure was designed to elicit diverse linguistic data from multiple perspectives, reflecting the interviewees' roles and responsibilities. The four main themes explored were:

1. About Noma
2. Career Capital (comprising Knowing-How and Knowing-Why)
3. Elements of the Career Capital Factory (Machine, Method, Man, Material, People Empowerment, Organizational Empowerment, and Channel)
4. Protean Career

A total of 36 open-ended questions were crafted to explore these themes in detail, ensuring a comprehensive understanding of the subject matter.

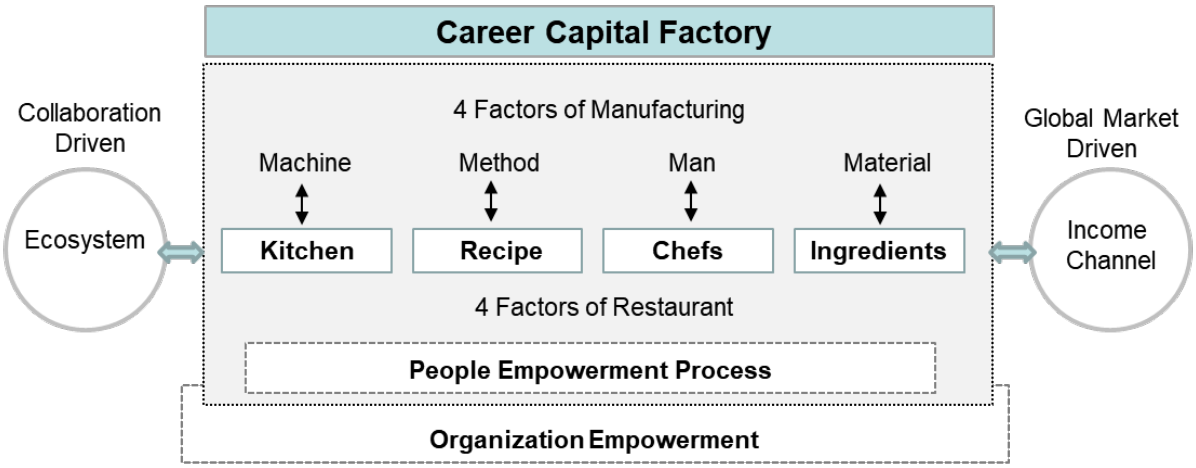
Third Step: Modeling Career Capital Framework

Building on the insights from the interviews, the study models Noma's unique organizational career development system to explain its approach to career capital development. Kim (2023) proposed a framework for analyzing career capital within creative industries, referred to as the Career Capital Factory (CCF) framework. This framework takes a systems perspective, explaining how organizations, like factories producing goods, must continuously enhance certain elements to maintain sustainability in creativity.

Noma operates its restaurant like a laboratory, developing its menu through an experimental, service-oriented approach targeting fixed-time service kitchens for specific guest groups. This approach aligns well with the CCF framework, which is modeled as shown below Figure 2.

FIGURE 2

Career Capital Factory Model



Source: Compiled by the author.

This study uses the term “Lab” instead of “Factory” to describe Noma’s career development system. The CCF framework is based on two key components: internal capacity building (through workforce development) and the integration of external capabilities. These processes support the development and application of career capital within the organization.

The CCF model distinguishes between internal capacity-building efforts (training and skill development) and external efforts aimed at broadening and internalizing capabilities. The model also highlights the importance of creating sustainable sources of revenue through collaborations, aligning with Noma’s strategy of developing long-term partnerships and continuously improving its organizational capabilities.

Through the CCF model, the study can analyze Noma's efforts to define target career capital (CC) objectives, develop internal competencies, expand capabilities through external sources, and sustain CC through strategic collaborations with external stakeholders.

Fourth Step: Analysis of CCF Model

Once the CCF model was developed, various interpretations were made to assess both the strengths and weaknesses of the organization. This analysis also allowed for the identification of future challenges and opportunities. By interpreting the findings from the CCF framework, the research highlights key areas for improvement and strategic recommendations for maintaining Noma's position as a leader in creative industries.

This approach offers significant advantages in understanding the dynamic process of career capital development within a creative, innovative organization like Noma. It provides a structured way to analyze organizational practices and career progression models, which are essential for sustaining long-term creative success.

RESEARCH CONTEXT

This study explores global organizations that cultivate creativity across borders, with a focus on human resource management and development within creative industries. Specifically, the research examines Noma, a Danish restaurant that has evolved into a pioneering creative organization within the culinary world, using the proposed framework to identify key characteristics that define its unique approach to fostering creativity and career development.

Noma: A Culinary Innovator

Noma, established in 2003 by René Redzepi, derives its name from the Danish words *"Nordisk"* (Nordic) and *"Mad"* (food), representing the fusion of local Nordic ingredients and culinary techniques. Located in Copenhagen, Noma quickly gained global acclaim for its leadership in the New Nordic culinary movement. It was ranked *The World's Best Restaurant* multiple times, including in 2010, 2011, 2012, 2014, and 2021, and earned several Michelin stars, cementing its position as a gastronomic authority. In addition to its success in Copenhagen, Noma has expanded internationally by operating pop-up restaurants in major cities such as Tulum, Sydney, Tokyo, and Kyoto. This strategy allowed Noma to create a global culinary network, further solidifying its status as an international leader in the restaurant industry.

Noma is particularly known for its experimental and innovative dishes, crafted from freshly harvested, locally sourced ingredients. It has become a must-visit destination for food enthusiasts from around the world, with reservations becoming so competitive that over 100,000 requests were submitted in a single month (Lim, 2023). The restaurant employs a diverse team of chefs and staff from 34 different countries, with 19 nations represented within the culinary team. This diversity is essential to Noma's operations, as it creates an environment that facilitates the exchange of cutting-edge culinary philosophies and techniques from across the globe.

In 2024, Noma announced its plan to transition from a permanent operation to a seasonal, sustainable pop-up model, representing a strategic shift from Noma 2.0 to Noma 3.0. Through this transition, Noma aims to establish its positioning as a pioneering test kitchen with a focus on culinary innovation. This transformation has generated significant anticipation within the culinary community, as the industry watches closely to see how Noma's approach will continue to shape the future of gastronomy. fdfd

In this study we identified Noma special characteristics as following:

(1) **Global Learning Hub for Culinary Innovation**

Noma functions as a global learning hub for chefs, offering a unique platform to experiment with new menu concepts and ingredients. Even veteran chefs consider Noma a prestigious institution, with its brand power recognized as a symbol of culinary excellence. The opportunity to participate in Noma's *Saturday Night Projects*, which are akin to global culinary competitions, provides chefs with a chance to showcase their skills in front of an international audience. As one chef from Japan recounted in an interview with *Courrier Japon* (2017), the desire to work at Noma was sparked by their experience dining at the restaurant, which led to a subsequent six-month internship opportunity. This story reflects the immense pull that Noma holds within the global culinary community, with its employees often seeing it as a place of personal and professional growth.

(2) **Emphasis on Creativity and Innovation**

At Noma, creativity is considered as critical as technical cooking ability. Chefs are encouraged to approach cooking with the mindset of researchers, constantly exploring new concepts and pushing culinary boundaries. This ethos is evident in the division of the kitchen into two primary teams: the Test Kitchen, which focuses on menu development and experimentation, and the Service Kitchen, where these experimental dishes are executed and served to guests. Noma practices *ambidextrous management* (O'Reilly & Tushman, 2011), balancing both exploration (in the Test Kitchen) and exploitation (in the Service Kitchen) to maintain an environment that fosters both creative experimentation and the execution of

refined dishes. This approach ensures that innovation and practicality are harmoniously integrated in Noma's operations.

As demonstrated by the Test Kitchen's use of diverse sources for inspiration—such as reading cookbooks, visiting art exhibitions, or studying the science of ingredients—Noma's chefs are encouraged to seek creativity beyond the kitchen. This open-ended approach leads to the creation of highly innovative dishes that challenge the conventional understanding of food, such as dishes made with ingredients like moss, ants, or reindeer brain. For Noma, creativity is not just about creating new flavors but about presenting food as an art form that stimulates the senses and challenges expectations.

(3) **Guests as Test Partners for Menu Development**

At Noma, guests are not merely recipients of a meal; they are participants in the creative process. The reservation system at Noma, for example, reflects a competitive process where guests must be quick to secure a spot, with only limited openings available each year. This creates a sense of anticipation and challenge, as the reservation itself becomes a "test" (Yamauchi & Hiramoto, 2016) of the customer's commitment and engagement with Noma's culinary philosophy. Guests are not simply dining—they are entering into a shared culinary experiment, where their experience is shaped by the restaurant's constantly evolving menu.

Once inside, guests walk through an open-plan kitchen, engaging with staff who share information about their background and any dietary preferences or restrictions. This personalized approach ensures that each guest's experience is tailored to their unique needs, fostering a deeper connection between the guests and the culinary process. Noma's offerings are designed to surprise and delight, presenting dishes in innovative forms—such as the *Potato Magma* dish,

which is served in the shape of a potted plant, requiring guests to dig inside to find a straw and sip a warm, rich broth.

Noma's commitment to pushing the boundaries of what food can be is also evident in its adventurous use of ingredients, such as hot peppers and rare spices, to challenge diners' perceptions of taste and culinary experience.

"I've always wondered what would happen If you served one of the world's hottest peppers at Noma. If only for a night." [1]

– René Redzepi, Founder, Head Chef, and Co-owner at Noma

As Head Chef René Redzepi remarked, Noma constantly strives to surprise guests with something beyond the typical dining experience, offering them a sense of wonder and discovery that goes far beyond the traditional restaurant model.

Through these characteristics, Noma does not focus on market share in the traditional sense but instead seeks to offer a transformative, boundary-pushing experience that continually tests the limits of both the chefs and guests. The restaurant's success is rooted in its ability to create new, immersive experiences that challenge culinary norms and redefine what is possible within the world of gastronomy.

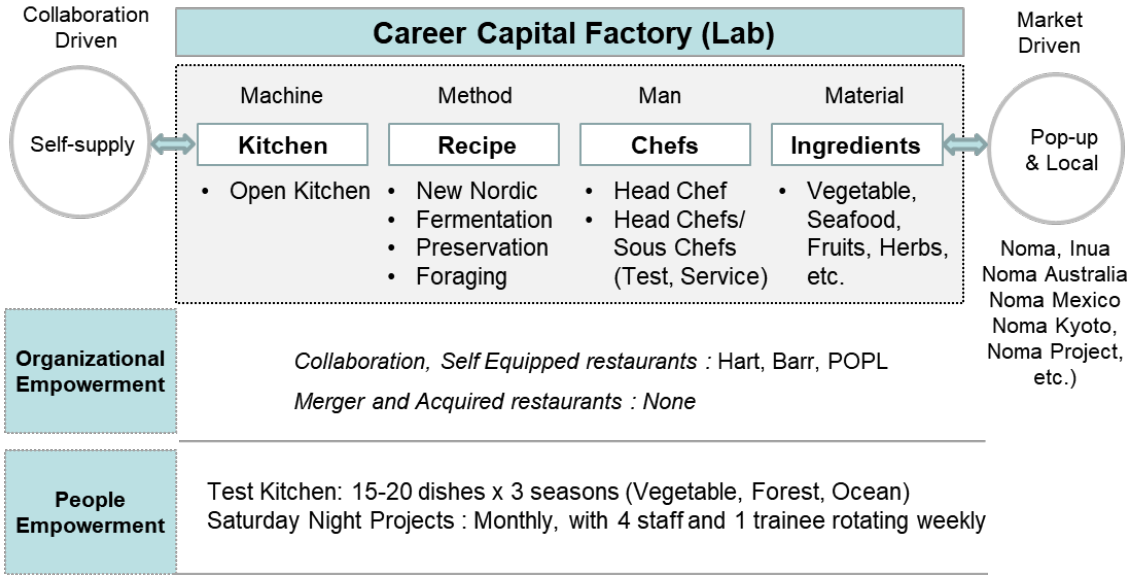
[1] *Omnivore. (2024). Season 1, Episode 1: Chile . Apple TV+.*

RESULTS

In this study, we explored how Noma nurtures Career Capital within its organization and whether it can sustain this capital through external collaborations using the Career Capital Factory (CCF) framework. The findings from the interviews suggest that Noma can be modeled as a Career Capital Lab within the CCF framework, as illustrated in Figure 3.

FIGURE 3

Modeling NOMA by Career Capital Factory (Lab) Framework



Source: Compiled by the author.

Finding 1: Noma as a Career Capital Lab

Noma can be defined as having four key components—Kitchen, Recipe, Chefs, and Ingredients—that align with the core elements of a Career Capital Factory: Machine, Method, Man, and Material. These elements work in synergy to constitute the Career Capital Development Lab.

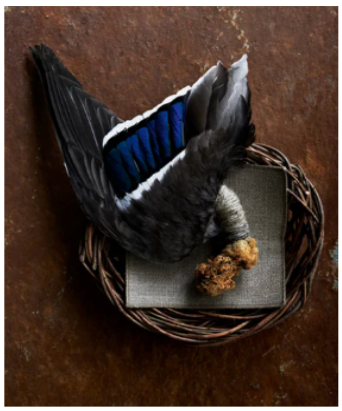
Material (Ingredients): Noma's ingredients go beyond simply being components of a meal; they represent a strategy for brand differentiation and market segmentation. The test kitchen head chef explains that Noma has a garden and a fermentation laboratory. While the fermented products developed here are not used as main ingredients, they are subtly incorporated into almost every dish at Noma. These ingredients play a crucial role in aligning the overall flavor and tone of the dishes, adding a distinct 'Noma-ness' to them.

Method (Recipes): Noma's menu is divided into three seasons—Vegetable, Forest, and Ocean—each offering around 15 to 20 dishes. Over time, Noma has developed a substantial menu, including 59 Vegetable dishes, 60 Forest dishes, and 77 Ocean dishes. These menus change quarterly to create unique guest experiences, evolving from seasonal ingredients and consistent innovation.Figure 4 shows dishes of Noma.

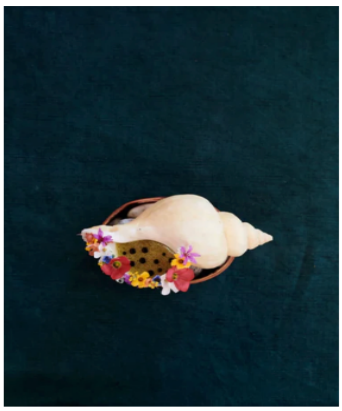
FIGURE 4

Dishes of Noma 2.0

Rose Terra Cotta



Mallard Wing



Sea Snail Broth

Source : Noma [2]

[2] https://noma.dk/recipes/

People (Chefs): At Noma, only the head chefs in the test kitchen are responsible for creating and refining the menus. The Test Kitchen chefs are crucial as they design and guide the recipes for the Service Kitchen chefs, who implement them. The Creative Director oversees the entire process, ensuring consistency and creative direction.

Machine (Kitchen): The kitchen equipment is either reused or borrowed, and the team occasionally utilizes materials such as silicone to create specialized tools when necessary.

Ecosystem: Limited External Collaborations

Noma maintains a highly restricted external collaboration ecosystem, particularly in areas such as menu development, ingredient sourcing, and chef partnerships. There is no formal system in place to develop collaborations with suppliers or external chefs for new dishes or cooking methods. While Noma maintains relationships with former chefs, these are more personal than organizational collaborations.

As one project manager explained, *"Noma does not have an official system to manage relationships with independent chefs yet. Instead, support is provided in the form of consultation or encouragement."*

There are a few instances of special supply relationships, such as a former Noma chef working with a company specializing in seaweed production and supply. As one head chef of Test kitchen explained, *"While we create the recipes ourselves, we collaborate with universities for the development of ingredients."*

Finding 2: Noma Fosters Chef Development Through the Menu Creation Process

Noma's menu development process is intensive and iterative, with a strong emphasis on rapid feedback and continuous refinement. The process is fast-paced, aiming to complete menus within a shorter period, often involving daily tastings and adjustments.

As the head chef of the Test Kitchen explained, *"Rene holds the final say on taste, so during this pop-up in Kyoto, we have tastings almost every day. Normally, a menu takes about three months to prepare, but in this case, we only have about a month and a half. We do tastings twice a day, sometimes more, and continually adjust based on feedback. After each tasting, we immediately correct the issues pointed out by Rene and present the revised dish. This process is repeated every day."*

Through this rigorous menu development process, chefs at Noma have the opportunity to hone their skills and expand their capabilities. Noma maintains a principle of always seeking new perspectives on familiar ingredients. As the head chef noted, *"When we have 30 menu ideas, we try 10 versions for each and do about five tastings per dish. Many recipes fail, and only a few succeed. Out of 100 tries, maybe just one will work. Since time is limited, when we fail, we move on quickly."*

In conclusion, at Noma, the development of a chef's career capital is not achieved through a concrete or structured training process. Instead, chefs must cultivate it themselves by actively participating in the trial-and-error process of menu creation.

Finding 3: Chefs at Noma Value Knowing-Why

According to DeFillippi & Arthur (1994), creators build their reputations through three stages: Knowing-whom (network), Knowing-why (identity), and Knowing-how (skills). Employees at Noma are often attracted by the creative atmosphere and global brand identity, with a particular emphasis on the Knowing-why aspect. Most chefs begin as interns, even if they have over 10 years of experience, and their prior skills (knowing-how) are not the main focus during the recruitment process.

As the head chef of the Test Kitchen, who already has over 13 years of experience at Noma, shared, *"I feel surrounded by constant discoveries and growth opportunities. Working here, interacting with brilliant people from all over the world, and receiving input from Rene and other staff members, is something I could never experience anywhere else. It drives me to aim higher."*

Similarly, the Project Manager reflected, *"I think the desire to challenge myself was a big part of why I joined. Noma moves quickly and works on diverse projects, which makes it different from a traditional restaurant."*

When asked why they chose Noma, the Project Manager explained, *"At Noma, it feels like you are utilizing all resources, and the energy of always staying ahead is truly inspiring."*

Regarding the question of whether employees tend to stay at Noma even without salary increases, the Project Manager confirmed, *"Yes, this trend definitely exists. It was even stronger in the past, but many people still remain motivated by the desire to learn. Of course, there are also those who want to have 'worked at Noma' on their resume."*

In conclusion, Noma employees prioritize their identity (Knowing-why) and the opportunity for personal and professional growth within a unique, dynamic environment over financial rewards or status. This reflects Noma's appeal as a place where the experience and learning opportunities are key motivators for its staff.

Finding 4: Limited Career Capital Development Opportunities at Noma

The interviews revealed that chefs at Noma develop their skills on an individual basis, and particularly for menu development, only those assigned to the Test Kitchen have the opportunity to refine this craft. This means that menu development at Noma is largely driven by a select group within the organization, limiting access for other chefs to develop these skills.

As one Test Kitchen chef explained, *"It's individual mentoring. Of course, when we work as a team, there are two head chefs. We (the Test Kitchen) communicate our ideas to the service kitchen head chefs, who then pass them on to the sous chefs. The sous chefs are divided into sections, generally four departments. The head chefs give some guidance, but most of the detailed instructions are conveyed by the sous chefs in daily or weekly meetings, or after shifts. We rarely communicate those details directly. For example, if there's a mistake during service, we might say, 'This should be done differently,' but generally, it's the service kitchen that does the hands-on teaching."*

Noma values a high degree of mutual trust and efficient vertical communication, especially with René, the head chef, at the top of this hierarchy. However, the difference in experience levels among chefs, combined with the inefficiencies in communication with the head chef, can limit opportunities for creativity and skill development. As a result, to truly develop career capital in

menu development, chefs must secure a position within the Test Kitchen and dedicate several years to solidify their path.

In conclusion, the opportunities for chefs to develop their career capital at Noma are constrained by a highly selective process. Only those within the Test Kitchen are afforded the chance to develop key skills in menu creation, and progression in this area requires years of tenure and positioning.

Finding 5: Noma's Structure Limits Career Capital Sustainability

In the CCF model, the key to the sustainability of career capital lies in building collaborative frameworks and securing continuous revenue through customer relationships. If this does not function properly, career capital opportunities cannot be continuously provided. From this perspective, Noma's approach reveals a reluctance to establish essential collaboration networks, leading to a lack of stable revenue sources. Meanwhile, the organization incurs significant costs due to its large number of employees and expensive menu development processes. Ultimately, Noma has undergone two closures and, in 2025, has announced its third closure.

As René Redzepi, the head chef, stated:

"Financially and emotionally unsustainable" – The New York Times [3]

Further reflecting on the financial challenges, a project manager shared:

"The profits hardly ever come through. The hotel's profit comes from room packages. The profit,

[3] Moskin, J. (2023, January 9). The restaurant will close for regular service at the end of 2024. The New York Times. https://www.nytimes.com/2023/01/09/dining/noma-closing-rene-redzepi.html

if any, comes from our side, from the restaurant. If we make a profit, that's where it's generated."

Noma does not constrain chefs' creativity within a market-driven culture, but this makes it difficult to develop career capital sustainably. This is because Noma does not adopt a corporate mindset that encourages individuals to develop their own genres or streamline processes for efficiency. Instead of operating as a profit-driven restaurant, Noma functions as an experimental organization focused on menu development. Initially, Noma was able to maintain its innovative edge through creative freedom and experimentation. However, the relentless pursuit of creativity ultimately led to a lack of long-term sustainability in chefs' career capital, which, in turn, resulted in operational challenges.

DISCUSSION

Differences in Career Capital Development between Factory and Laboratory Styles

According to Kim (2023), in the Factory model of career capital, Asian creators tend to gain the networks, values, and skills required for creative endeavors in a relatively short period by participating in organized, large-scale experiences like boundaryless careers. In contrast, Noma operates more like a laboratory, where the organization does not proactively provide these opportunities. Instead, employees are expected to take the initiative in finding the career capital they need, pursuing their own creative interests. Chefs at Noma seek to acquire the skills and expertise that align with their personal career goals by identifying mentors they admire or by selecting places where they can experiment with their desired culinary creations. In this

environment, chefs independently pursue the development of their career capital through unique experiences.

Career Capital Factory-style organizations (Kim, 2023) focus on the collective development of career capital within teams, aiming to accelerate expertise through structured systems. In contrast, Career Capital Laboratory-style organizations, such as Noma, emphasize individual-driven development, valuing personal exploration and experiential learning.

Kim's (2023) CCF framework shows that even within creativity-dependent organizations, the approach to career capital development can vary significantly. A central differentiator lies in how organizations manage constraints essential for creative output—particularly whether these constraints are aligned with customer orientation. This is captured in the Career Capital Factory framework(Kim,2023) "Income Channel" component, which refers to how creative outcomes are delivered to the market. The design of this channel reflects the organization's strategic intent and shapes its career capital development. Key questions include: Does the organization set annual creative output goals? Are there specific standards that must be met to attract and retain clients?

Career Capital Factory-style organizations tend to believe that creativity is fostered through sustained competition and continuous exposure to high-quality external work. As such, they implement mechanisms like annual targets, early client acquisition, and tight operational control through upfront investments. By contrast, Noma recognized that constant operational pressure could hinder creativity. In response, it adopted an occasional pop-up model, giving team members space to recharge and pursue innovation.

The Replicability of Noma's Style

The chefs at Noma often acquire networks, identities, and skills that enable them to specialize and establish their own brand or restaurant. Many of these chefs, influenced by the success of Noma's creative model, believe that they can replicate Noma's approach by opening restaurants that replicate its recipes and techniques. However, customers are unlikely to experience the same value from a similar concept, as Noma's success is deeply tied to the unique cultural identity, atmosphere, and philosophy of the restaurant. Simply replicating the menu will not result in the same level of recognition or acclaim.

Rather than building their brand by emulating the top artists they experienced at Noma, it may be more effective for chefs to focus on enhancing the genre they excelled at in the restaurant they were part of. Building on their personal strengths and carving out a niche in a particular culinary genre could offer a more sustainable path forward.

A case of challenges can be observed with the Tokyo-based restaurant Inua, which was influenced by Noma's approach. The restaurant, led by a creative director who had worked closely with Noma's head chef René Redzepi, offered a Noma-style fine dining menu, and it was well-received. In doing so, he was able to showcase his own unique style and demonstrate his leadership and culinary expertise.

Despite the strong influence of Noma, Inua was unfortunately forced to close after two years due to the impact of the COVID-19 pandemic. However, this raises an important question: Was this primarily the result of the pandemic, or does it suggest that simply replicating Noma's creative approach may not necessarily guarantee success, particularly in terms of fostering a chef's protean career? The chef's identity may have been too closely tied to imitating Noma's

legacy, which could have potentially affected the long-term sustainability of both the restaurant and the chef's career.

On the other hand, a successful example of a protean career comes from one of the chefs who worked in Noma's test kitchen. Although he was not a full-time employee, he benefited from his collaborations with Noma, which allowed him to learn and truly understand what it means to work at the highest level of culinary excellence. Specializing in seaweed, he leveraged his experience with Noma's ocean-based seasonal menus to secure a supplier focused on seaweed. By transitioning his career from being both a supplier entrepreneur and a chef, he was able to strengthen his expertise. He successfully carved out his own niche and was able to develop a protean career.

This example shows that for chefs, the transition from career capital to a protean career—where they can fully specialize and build a unique identity—often requires a combination of skills, relationships, and the ability to translate their experiences into a personal brand, rather than merely replicating what they learned at Noma.

CONCLUSION

This study aimed to analyze the career capital development process at Noma using the Career Capital Framework (CCF), which helped model the restaurant's approach and limitations in fostering career capital. The findings from the Noma case show critical insights into the development of career capital in creative organizations.

Key findings from this study include: (1) Noma operates as a *career capital laboratory*. (2) Noma nurtures chefs through its rigorous menu development process. (3) However, opportunities for chefs to develop career capital at Noma are limited. (4) Employees at Noma place significant importance on the *Knowing-why* aspect of their careers. (5) The structure at Noma makes it challenging to guarantee the sustainability of career capital development.

In a laboratory-style organization like Noma, individuals enhance their career capital and transition into protean careers through long-term involvement in specific roles, development of trust with leadership, and engagement in menu development within a specific department. These opportunities enable chefs to evolve both their career capital and specialized skills.

The results of this study suggest that, while research and innovation-focused creative organizations like Noma appear highly creative in terms of human resources and products, maintaining sustainable creativity and adapting to change requires a stronger emphasis on building collaborative networks and stable revenue streams and adopting a team-centered management, rather than solely on the generation of new ideas.

A key limitation of this study was the focus on a limited number of interviewees. A broader collection of perspectives from more employees would have provided richer data. Although data was collected from current staff at Noma, there was insufficient exploration of how protean careers could be fully realized within the organization. Further research is needed to examine how protean careers can be practically implemented and supported within creative organizations like Noma.

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APPENDIX

Appendix 1. Interview Sheet Questionnaire for Noma Kyoto

No.	CATEGORY	KEYWORD	QUESTION
1	**Noma**	About Noma	In which situations have you witnessed the strengthening of teamwork at Noma? Please provide a specific example.
2		About Noma	In which situations have you witnessed the weakening of teamwork at Noma? Please provide a specific example.
3		Creativity in Noma	What constraints does Noma use in order to present creative dishes?
4	**Career Capital**	Knowing How	How has the method of creating recipes changed compared to before you joined Noma?
5		Knowing How	What are the unique skills that can only be acquired at Noma?
6		Knowing Why	Why did you join Noma? What did you want to learn by joining Noma, and how do you feel now?
7		Knowing Why	Why did you choose to join Noma 10 years ago, and what has kept you with the organization since then?
8		Machine	Does Noma produce kitchen equipment internally, buy externally, or customize it?

9	**CCF Framework**	Method	On average, how many recipes do you develop daily? Are there specific expectations or targets regarding the number of recipes you are required to create?
10		Method	Do you develop recipes individually, or do you collaborate with colleagues?
11		Method	Do you collaborate with external organizations, such as universities, or purchase recipes from experts for recipe development?
12		Method	Could you describe the recipe development process?
13		Method	How many dishes did Noma Kyoto offer?
14		Man	As shown in the organizational map, does this diagram accurately represent the structure of Noma's kitchen? How do the roles of chefs in the test kitchen differ from those in the service kitchen?
15		Man	How do the approaches of Head Chefs A, B, and C in the test kitchen differ from yours in terms of recipe development?
16		Man	What is the role of the Creative Director within the organization, and how do they support you?
17		Man	What skills are required of chefs entering the Test kitchen, and what type of training have they received?

18		Man	What skills are required of chefs entering the Service kitchen, and what type of training have they received?
19		Man	Are there specific members or groups that you find easier to work with or guide?
20		Man	Do you provide guidance to your team as a whole, or do you mentor individuals on a one-on-one basis?
21		Man	What criteria are used to determine promotion within the organization?
22		Man	How does the scope of your responsibilities change upon promotion?
23		Material	How do you source ingredients for recipe development?
24		Material	How much do you rely on internal gardens or experimental labs, such as permanent facilities, for ingredient development, or do you prefer to source ingredients from specialized external suppliers?
25		People Empowerment	What is the system for menu development meetings, and is the Saturday Night Projects initiative still in operation?
26		People Empowerment	If the Saturday Night Projects are no longer in place, how are the menu development meetings conducted instead?

27		People Empowerment	If so, how often are these meetings held?
28		People Empowerment	In addition to the new meeting system, what routines does Noma have in place to mentor chefs?
29		Organizational Empowerment	How does Noma maintain relationships with former chefs? Does Noma actively collaborate with or support independent restaurant ventures started by them?
30		Channel	What criteria are considered when selecting restaurant locations?
31		Channel	What is Noma's approach to profit distribution in the context of pop-up restaurants?
32	**Protean Career**	Ecosystem	What are the current positions or locations of chefs who have previously worked at Noma?
33		Ecosystem	When chefs leave Noma, do they usually go solo, or do they team up to open restaurants?
34		Ecosystem	When you leave Noma, what do you anticipate your next career step will be?
35		Ecosystem	How do you believe the new recipe development methods at Noma will benefit you if you were to leave the restaurant?
36		Ecosystem	What kind of support does Noma provide to its members when they decide to become independent?