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**CORPORATE-STARTUP COLLABORATION: A DECISION-MAKING FRAME-  
WORK BASED ON INFORMATION ECONOMICS THEORY**

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## **I. Abstract**

Corporate-startup collaboration is essential in today's fast-paced business environment to address challenges. However, managers often struggle to choose the right collaboration type due to unclear decision-making frameworks and decision attributes. This study aims to develop a decision model using information economics theory. A literature review identifies and categorizes collaboration types based on equity involvement, deriving nine decision attributes organized into three categories examined through their information economic features. A scoring model provides a managerial framework to guide decision-making. Key contributions include a new clustering of collaboration types, an analysis of decision attributes, and a theory-driven framework for practitioners.

## **Keywords**

Corporate, Venture, Startup, Collaboration, Information Economics, Decision Model

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## 1. Introduction

In a world where 52% of the Fortune 500 companies from the year 2000 have disappeared (Yahoo Finance 2023) due to market disruption, the pressure to adapt has never been more intense. Technological advancements are rewriting the rules of competition and require incumbents to optimize their business models and seek new growth opportunities (Weiblen and Chesbrough 2015). Large corporations can be described as established, resource-rich entities focused on efficiency and scalability (Dizdarevic, van de Vrande, and Jansen 2024). Corporations seek strategic alliances with incumbents to mitigate environmental exposure (Zhou, Gomes, and Vendrell-Herrero 2023) while also adopting entrepreneurial behavior to overcome innovation boundaries (Ahuja and Lampert 2001; Phan et al. 2009). Originating from the concept of *corporate entrepreneurship*, scholars have considered *corporate entrepreneurial behavior* as those “initiatives that take place within companies and that aim at creating and adding new business, or at fostering innovation, change and renewal” (Urbano et al. 2022, 1545).

Corporations are actively pursuing inter-organizational relationships with innovative *startups*, or *ventures*, that are agile and small (Dizdarevic, van de Vrande, and Jansen 2024) to gain first-hand entrepreneurial behavior experience as scholars conceptualized under *corporate-startup collaboration* or *corporate-venture collaboration* (Giglio et al. 2023; Dizdarevic, van de Vrande, and Jansen 2024). This inter-organizational relationship involves a large, established organization and a small, striving venture (Weiblen and Chesbrough 2015). For example, Microsoft and OpenAI partnered to enhance advanced language models, with Microsoft supplying cloud infrastructure and funding while OpenAI provided its cutting-edge language models. According to Weiblen and Chesbrough (2015), incumbents can utilize resources like financial power, operational efficiencies, brand recognition, and a loyal customer base. Despite abundant resources, large corporations struggle to adapt quickly to environmental changes due to their size and bureaucracy. Conversely, startups are inherently agile and possess products or services

leveraging disruptive technologies. However, they face resource limitations and lack the infrastructure necessary to scale rapidly (Riepe and Uhl 2020), resulting in a complementary nature of startup and corporate assets (Rothaermel 2001). Collaboration allows corporations to access disruptive technologies, enhance agility, and accelerate innovation (Allmendinger and Berger 2019; Simon, Harms, and Schiele 2019). Startups seek collaborations with large corporations for funding (Simon, Harms, and Schiele 2019) and to gain access to complementary assets like market knowledge, helping startups streamline product development and services (Boni and Joseph 2019).

Subsequently, corporate-startup collaboration is a key lever for mutually beneficial growth and market competition, resulting in a popular research topic among scholars. Despite that, the literature lacks a deeper understanding of how collaborations are established and a more theoretical-backed understanding and analysis of the underlying decision attributes based on theoretical foundations (De Groote and Backmann 2020; Giglio et al. 2023). Further, the literature lacks practical decision frameworks (Demir and Lukes 2024).

Nevertheless, corporate-startup collaboration carries risks. Both parties must avoid pitfalls and mismatches that could hinder achieving expected outcomes results. Cultural differences and agility impede collaboration, causing communication errors and slow processes (Weiblen and Chesbrough 2015). Some scholars even stress that expected results are often overvalued and less effective than anticipated (Pahnke, Katila, and Eisenhardt 2015). Therefore, corporate-startup collaboration may hinder processes and lead to missed expectations. The inter-organizational relationship between large corporations and startups can take on many forms, which will later be discussed. The thesis will aim to provide an overview of the most common types of corporate-startup collaborations and cluster them based on similarities and differences, resulting in the first research question:

*RQ1: What are the most common types of corporate-startup collaboration, and how can they be clustered?*

Research on collaboration types has explored decision-making processes and selection criteria, but there is a literature gap due to limited insights. Thus, the thesis will further research how such collaborations emerge and thereby will address the call by De Groote and Backmann (2020) for more understanding of the underlying factors of collaboration, resulting in the following research questions:

*RQ2: What attributes define corporate-startup collaboration, and how can they be clustered?*

*RQ3: How can the attributes be examined, assessed, and evaluated?*

Scholarly literature lacks in-depth examinations of selection criteria and theoretical connections. Thus, this thesis will apply information economics theory to analyze these attributes, addressing the call by Giglio et al. (2023) for stronger links with existing theoretical concepts, resulting in the following research question:

*RQ4: How can the attributes be analyzed and categorized based on information economics?*

The thesis addresses the research gap in managerial decision-making by developing a framework for corporate-startup collaboration. It responds to Demir and Lukes (2024) for practical decision frameworks. Using scoring model methodology, it reconciles insights from attribute analysis with scoring models, creating a decision model for corporate-venture collaboration types question:

*RQ5: How can a decision model look like for a large corporation when considering corporate-startup collaboration?*

The thesis summarizes findings, discusses limitations, and proposes future research. It aims to provide a comprehensive understanding of corporate-startup collaborations by identifying types, analyzing decision attributes, and creating a decision-making framework for large corporations. By filling theoretical gaps and providing practical management tools for navigating these collaborations, it contributes to the literature on inter-organizational relationships and innovation management.

## 2. Literature Review of Corporate-Startup Collaboration

The thesis will provide a comprehensive overview of the current state of research on corporate-startup collaboration. The chapter will touch upon different literature streams and perspectives within the research domain and deep-dive into various forms of corporate-startup collaboration. Finally, the thesis aims to cluster the most common types of collaboration into three buckets.

### 2.1 Literature Streams

Research on corporate-startup collaboration dates back to the early 1990s when Oakey (1993) studied small firms in biotechnology. Since then, studies have explored various subtopics, enriching our understanding of the phenomenon. In this regard, scholars have examined the domain from different perspectives: (i) *performance outcomes*, (ii) *selection attributes*, (iii) *mediators & moderators*, and (iv) *managerial frameworks* (Appendix 1).

Research on corporate-startup collaboration *performance outcomes* began with the emergence of this field. Zahra (1996) studied performance differences in technology strategies between corporate-backed and independent biotechnology ventures. Sorrentino and Williams (1995) explored how the relatedness between corporations and startups impacts startup performance. Thus, scholars also focused on the factors and resulting *selection attributes* for collaboration affecting performance outcomes for both parties. However, this research area was neglected for the sake of mediators and moderating collaboration types. In this regard, scholars predominantly dedicated research towards the various corporate-startup collaboration types, e.g., *corporate venture capital (CVC)* (Chesbrough 2000; Maula, Autio, and Murray 2005; Dushnitsky 2008). According to Dizdarevic, van de Vrande, and Jansen (2024) the research regarding *outcomes* and *mediators & moderators* back then had been primarily researched from the perspective of large companies. Only a fraction of the literature was dedicated to the startup perspective (Colombo, Grilli, and Piva 2006; Dushnitsky and Shaver 2009). Research began to emphasize the underlying factors and decision attributes that precede corporate-startup collaboration types,

known as antecedents. This literature aims to enhance understanding of various collaboration types by examining the selection attributes influencing chosen collaboration forms. Managerial frameworks are essential in translating scholarly findings into actionable items. However, Demir and Lukes (2024) noted that little effort has been directed toward this research area. Their study develops a decision matrix for collaboration forms based on equity involvement and startup maturity, combined with selection criteria to derive managerial implications from a decision model matrix.

The thesis aims to touch upon the perspectives of (ii) *selection attributes*, (iii) *mediators & moderators*, and (iv) *managerial frameworks* by addressing ongoing debates and calls for future research. The thesis offers insights into selection attributes by clustering and evaluating them through information economics theory (related to RQ2, RQ3, and RQ4). It deepens understanding of factors influencing collaboration types, addressing varied classification methods in existing literature. Additionally, it identifies common corporate-startup collaboration types and groups them into categories (related to RQ1). As a side note, the thesis discusses moderating effects by analyzing the economic features of selection attributes within decision frameworks. Finally, it proposes a decision model for practitioners based on the moderating effects of selection attributes' information economic features (related to RQ5).

## **2.2 Types of Collaboration**

This chapter examines corporate-startup collaboration types, clustering them by equity involvement. Each subchapter discusses the emergence, characteristics, and distinctions of each type.

### **2.2.1 Non-Equity Collaboration**

Recent literature on corporate-startup collaboration highlights venture clienting, also known as startup-supplier programs. This approach allows established companies to innovate without making substantial financial investments in early-stage startups. According to Haarmann et al. (2023, 345), the process of venture clienting takes place when “established companies become

early clients of the start-ups (...) and carry out a pilot project to develop a proof of concept and validate it under real conditions”. Put differently, the venture client model allows collaboration without financial ties through equity or intellectual property (Gimmy et al. 2017). Venture clienting offers benefits: Corporations access new technologies and validate them in real conditions without major financial commitments, acting as clients rather than equity holders (Kurpjuweit and Wagner 2020). Further, corporations can run the venture client model for relatively low fixed costs (Gimmy et al. 2017), as the model is usually conceptualized for only six months, and results start to come in quite fast (Kurpjuweit and Wagner 2020). Kurpjuweit, Wagner, and Choi (2021) emphasize that acting as venture clients allows corporations to customize offerings to their needs, favoring follow-up investments after a successful pilot program. For startups, the venture client model allows them to refine their products by testing in real-world conditions, accessing high-quality customers for feedback, and optimizing product-market fit to scale quickly (Haarmann et al. 2023; Siota et al. 2020; Gimmy et al. 2017). However, venture clienting poses risks for startups, who often fear intellectual property theft or delays from bureaucratic processes (Weiblen and Chesbrough 2015; Minshall et al. 2010).

### **2.2.2 Minority Investment**

Large corporations pursuing innovation through corporate-startup relationships often explore *corporate venture capital* (CVC) investment models. CVC can be described as a “direct minority equity investment made by established companies in privately-held entrepreneurial ventures” (Basu, Phelps, and Kotha 2011, 153). The biggest benefit to corporations in pursuing CVC is the access to novel technologies and the resulting increase in firm value (Dushnitsky and Lenox 2006). However, CVC vehicles are costly to run and have lengthy processes (Weiblen and Chesbrough 2015), with the inherent threat of scaring off high-quality ventures that fear the exploitation of intellectual property regarding their disruptive technologies (Dushnitsky and Shaver 2009). Nevertheless, startups might want to incorporate a large corporation into

their cap table for several reasons: First, CVC investments provide another source of funding besides traditional VCs. Second, ventures can access complementary assets (Rothaermel 2001) and can leverage the corporation's reputation as a quality stamp (Stuart, Hoang, and Hybels 1999). Conversely, CVC also bears some risks for startups since CVC units primarily grant their fund managers less variable compensation (Dushnitsky and Lenox 2006), which might result in fewer incentives for effective portfolio management to scale the venture. Another threat to startups is intellectual property theft by the larger (Minshall et al. 2010). Besides that, aligning with a large incumbent risks losing flexibility and freedom to change direction, such as selling the company to a competitor (Weiblen and Chesbrough 2015).

*Corporate Accelerators* represent another tool of corporate-startup collaboration. Corporate accelerator programs aggregate multiple ventures into a three-month growth program (Kohler 2016). Such programs provide “various services, such as office space, mentoring, training, and networking opportunities, in addition to investment capital for startups” (Kanbach and Stubner 2016, 1761). Cohen (2013) states corporate accelerators follow a competitive selection process, making minority investments in various ventures under similar conditions. This allows them to access innovation, talent, and the startup's mindset. According to Moschner et al. (2019), the accelerator format helps incumbents to enable quicker validation of ideas and to position themselves as a favorable employer. However, Kohler (2016) notes that startups sometimes feel constrained by corporate bureaucracy, which can harm their creativity. From a startup perspective, corporate accelerators provide access to resources such as funding, mentoring, and networking to help entrepreneurs scale their businesses and test product-market fit (Kohler 2016; Moschner et al. 2019). On the flip side, startups have to give up equity and fear the loss of autonomy while being tied to the corporate accelerators' agenda, which follows the interests of the incumbents (Kohler 2016).

*Corporate Incubators* represent another opportunity for incumbents to engage with startups. Weiblen and Chesbrough (2015, 71) state that “corporate incubators provide nascent ventures with funding, co-location, expertise, and contacts.” Corporate incubator programs typically support early-stage startups with a long-term approach and seem to be similar to accelerators. However, according to Cohen (2013), incubators differ in the following dimensions: *Duration-wise*, incubators are designed to follow a time period of up to 5 years instead of only three months. Additionally, incubators do not follow the *cohort principle* and include startups on a rolling basis. Lastly, the *mentorship and education programs* are not as deeply designed as with accelerators; corporate incubators rather aim to give the ventures space to develop their ideas before scaling.

### **2.2.3 Acquisition**

An acquisition usually comprises a large and financially superior company taking over a smaller and less financially equipped company (Malik et al. 2014). The thesis refers to a large corporation that acquires at least a majority stake in the venture or even fully acquires the target company. In this regard, acquisitions within the realm of corporate-startup collaboration are not uncommon. An acquisition by a large incumbent represents one of many venture exit opportunities. According to Kohler (2016, 349), an acquisition enables the incumbent to find a “quick and impactful way of buying complementary technology or capabilities that solve specific business problems,” resulting in the immediate gain of control over the startup. Despite that, acquiring a high-potential startup embodies a significant financial liability. Further, depending on the equity amount acquired in the venture, the incumbent might fear decreasing incentive alignment by founders or even struggle to develop the startup. From the startup perspective, an acquisition by a large corporation is highly appreciated as incumbents do not fear paying price premiums (Cotei and Farhat 2018). However, acquisitions come with losing control, and founders might fear change in business directions when giving away a majority share of the business.

After clustering the most common corporate-startup collaboration types based on the amount of equity granted to the larger corporation, the thesis will connect the classification of decision attributes and antecedents with the chosen theoretical foundation of information economics.

### **3. Theoretical Foundation**

The *information economics theory* will lay the foundation of the thesis and, thus, the following chapters. The theory has its roots in the early 1960s when Stigler (1961) touched upon the complexity and nature of search in price comparisons. In this regard, information economics refers to the economic analysis of obtaining information about a certain objective (Stigler 1961). However, within the realm of information economics, the concept of information economic properties of goods became a prevalent topic discussed by many scholars. For example, Nelson (1970) argued that goods could either be a *search good* or an *experience good*. Nelson (1970) described search goods whose quality could be observed before the purchase, while the quality of experienced goods could only be observed post-purchase. Building upon this, Darby and Karni (1973) extended the view by adding *trust goods* into the terminology, indicating that those goods and their quality would be revealed after a long period of time. However, this simplistic view of three types of goods was replaced by the consideration that a good inherently consists of all types, resulting in an individual composition of *search features*, *experience features*, and *trust features* (Appendix 2).

Scholarly literature, especially in the realm of marketing-related journals, used this theory to explain customer journeys and the underlying forces behind buying decisions (Urbany 1986). However, scholars have stressed the flexibility and untapped potential of the information economics theory for further research. In this regard, scholars also touched upon a dynamic perspective of a good's composition of such features when considering transaction processes, for example, in the context of participation processes at venture capital funds (Kollmann and Kuckertz 2009). Scholars argued when considering dynamic processes that the initial predominant

information economic feature of *trust* can be reduced in favor of the search and experience features, indicating that the attributes that define participation from, e.g., insurance companies considering participation at venture capital funds, become more search and experience-driven at a later moment in time (Kollmann and Kuckertz 2009). Thus, scholars dedicated room for the dynamic capabilities perspective and also room for applying the information economics theory beyond a physical consumer good. The thesis will apply information economic theory to corporate-startup collaboration. This theory offers a perspective for creating a decision framework to define suitable collaborations. It will classify antecedents and decision attributes between corporations and startups into primary and secondary feature types (search, experience, and trust).

#### **4. Classification & Analysis of Decision Attributes**

This chapter classifies and analyzes antecedents and decision attributes for corporate-startup collaboration processes. The thesis aims to identify and cluster common decision attributes based on existing literature and subjective interpretation into consolidated categories. First, each decision attribute was selected based on its potential match to form a consolidated category with two other attributes based on a subjective interpretation of a matching theme topic. Afterwards, the thesis analyzed them based on information economics theory, focusing on primary and secondary feature types (search, experience, and trust). The following examples will further explain the procedure: *Attribute X → can be assigned to bucket (1) → Attribute X comprises primarily search features, secondarily experience features* **OR** *Attribute Y → can be assigned to bucket (2) → Attribute Y represents primarily experience features.*

##### **4.1 Classification of Decision Attributes**

Before classifying the decision attributes into clusters, one must derive them based on the given literature. Additionally, the thesis provides an overview of practical examples for each derived attribute to understand its importance further (Appendix 3). When encountering literature

regarding decision attributes, some scholars provide a systematic overview of what attributes are relevant in the process (Ademi, Schuhmacher, and Zacharakis 2022; Masucci et al. 2021; Brandt et al. 2023). In this context, scholars frequently touch upon the attribute of *compatibility*, which often refers to compatibility on a product and technology level (Brandt et al. 2023). The attribute focuses on a startup's product, service, or technology, which should be compatible with the corporation's current offering or the intended future offering that the corporation pursues. This compatibility refers to the higher-level match of two offerings or processes that should strengthen and/or complement the incumbent's objectives and can be integrated into the incumbent's value chain and strategy. Further, the product, service, or technology should be easily integrated into the current infrastructure technically and functionally, and if possible, own a high technological readiness level. Based on Brandt et al. (2023), the attribute's characteristic of "technology readiness level" and "technological capabilities" are backed by expert interviews and, thus, a valid attribute within the process. Further, compatibility is highlighted as a selection criterion by many scholars as a means of strengthening the incumbent's core business objectives (Henderson 2009; Lantz, Sahut, and Teulon 2011) and complementing the incumbent's resources (Andersson and Xiao 2016; Dushnitsky and Shaver 2009).

Related to that, scholars also touch upon the attribute of *synergies*, often in the context of technological synergies (Weber, Raibulet, and Bauke 2016). The attribute is the added value from integrating the startup's product, service, or technology into the large company. The startup should provide a tangible benefit that enhances the corporate offering or infrastructure. The thesis argues that this value must support the corporation's core competencies and present a clear customer advantage. The startup offering should also deliver further value for the corporation's existing innovation activities, not just the core competencies. The second attribute is relevant as it covers an important part of the selection process of corporate-venture collaboration. One of the goals in seeking a collaboration with a startup is to have a positive and

measurable return for the business; thus, leveraging synergies becomes crucial. Weber, Raibulet, and Bauke (2016) underline the importance of the attribute, which is later validated through expert interviews by Brandt et al. (2023).

Related to that, the thesis argues that as a side product of striving for synergies, the additional attribute of *market positioning* and its importance are inherently covered by the goal of collaboration and thus shall be considered. The thesis refers to the attribute as integrating the startup's offerings into a corporation's existing infrastructure, which strengthens its market position against competitors, which might be already indicated through the startup's market acceptance (Mahmoud-Jouini, Duvert, and Esquirol 2018). This integration allows the corporation to provide new or improved value propositions that differentiate it from others. Unique features can retain current customers, attract new ones, and grow market share. Additionally, a partnership with the startup can enhance the corporation's agility and innovation, enabling quicker responses to market changes and customer needs (Weiblen and Chesbrough 2015). The attribute is inherently relevant as corporate-startup collaboration aims for both parties to be better off in the market. The thesis argues for the clustering of (i) *compatibility*, (ii) *synergies*, and (iii) *market positioning* into a category bucket of (1) Product-Market Fit, as the attributes refer to decision attributes that relate to the product, service, and technology level while also touching upon market-related fit.

Besides that, scholars also examined decision attributes from a broader perspective. The attribute of *decision-making speed & flexibility* refers to a startup's ability and agility to make quick and adaptive strategic decisions in response to changing market dynamics (González-Cruz, Botella-Carrubi, and Martínez-Fuentes 2020). Those decisions can relate to minor strategic adaptations and the speed and flexibility to change the business model approach when facing market uncertainties. The attribute is relevant as startup agility should not be mistaken for granted. Even though startups are inherently agile, González-Cruz, Botella-Carrubi, and Martínez-

Fuentes (2020) highlight the harmful effect of large founder teams on agility. Besides that, the attribute is relevant as startups often need to cope with slower and less agile incumbents, for example, if there is no external corporate entity for innovation-related activities. Thus, startups should acknowledge that access to complementary resources from an incumbent comes at the expense of potential disputes, along with decision-making speed and flexibility. Subsequently, the thesis argues that incumbents should focus not only on the speed and flexibility of the startup's decision-making processes but also on the startup's acknowledgment, sensitivity, and understanding of the decision-making processes of the corporation.

Related to that, the thesis argues that the attribute of *resilience* shall also be considered when referring to corporate-startup collaboration. The attribute refers to the startup's capacity to persevere and adapt successfully when facing uncertainties. This attribute is important to emphasize when considering corporate-venture collaboration since startups often face high uncertainty. The ability to navigate setbacks is essential for sustained success while reducing the risk of project abandonment and ensuring a greater likelihood of completing joint initiatives.

Further, the decision attribute of *goal commitment* shall be considered. The attribute refers to the degree to which a startup prioritizes collective objectives over individual gains and aligns its actions with the corporation's broader mission and vision. The attribute plays a pivotal role since goal alignment must be present to establish a mutually beneficial relationship between the corporate and the startup. Commitment to shared goals is vital for fostering long-term collaboration and trust. When a startup aligns closely with an incumbent's mission, it lowers friction and strengthens a collaborative culture that supports the strategic goals of both organizations. The thesis argues that the attribute of goal commitment is inherently part of the strategic fit between a corporation and a venture when considering collaboration. The importance of strategic fit within the collaboration process is generally discussed in scholarly literature. Scholars like Masucci et al. (2021) validated attributes and antecedents that play a pivotal role in the

selection process of corporate-venture collaboration. Among those, the strategic fit was extensively discussed, including goal alignment, which inherently includes goal commitment argued by the thesis. In this regard, the thesis argues for a clustering of (i) *decision-making speed & flexibility*, (ii) *resilience*, and (iii) *goal commitment* into a category bucket of (2) Organizational-Cultural Fit as the attributes refer to the entity-level of the startup as an organization, instead of pinpointing the qualities of individual players.

Scholars have also been examining decision attributes on a more individual-based level. In this regard, the attribute of *integrity*, as part of the personal fit between the incumbent and the startup, refers to the startup's management commitment to maintaining ethical standards, transparency, and honesty in its business practices (Brandt et al. 2023). This attribute represents a crucial pillar for a partnership between both parties because integrity and its associated ethical alignment are crucial for cultivating a successful partnership. Further, another attribute of *professionalism* is discussed by scholars, which refers to the consistency with which the startup's leadership fulfills commitments, meets deadlines, and follows through on promises (Brandt et al. 2023). Professionalism is relevant since the incumbent seeks a startup that can be counted on to meet deadlines and handle responsibilities reliably. Reliability is essential for smooth collaboration, minimizing delays and miscommunication. Trust in the startup's professionalism fosters a stable partnership, enabling both parties to focus on shared goals. This attribute's importance has also been discussed in scholarly work literature. Brandt et al. (2023) emphasize the importance of professionalism by validating the attribute through expert interviews with leaders of corporate venturing units.

Lastly, the attribute of *long-term exit* shall be considered. The thesis argues that the (long-term) exit ambitions of startup founders can be seen as part of the commitment of entrepreneurs, which is discussed by scholars and validated through expert interviews by Brandt et al. (2023).

The thesis defines the attribute as the dedication of the startup's leadership to maintaining the partnership over time, prioritizing long-term goals over individual short-term gains via an early exit. The consensus of startup founders is to foster long-term and sustainable growth of their own company to exit eventually. However, if founders do not want to wait long for their exit, they may prioritize short-term gains through an early exit option, for instance, by selling to a competitor of the collaboration partner. This is relevant since incumbents fear misalignment and lack of commitment from the entrepreneurs. Long-term commitment is crucial when considering collaboration because only the startup founders know their true intentions on an exit. Nevertheless, the intentions are heavily subject to change and can suddenly change throughout the collaboration journey, resulting in an unknown component even for the founders themselves. The thesis argues for a clustering of (i) *integrity*, (ii) *professionalism*, and (iii) *long-term exit* into a category bucket of (3) Management-Individual Fit as the attributes refer to characteristics on an individual-based level, describing the qualities and features of the startup's individual players.

## **4.2 Analysis of Category Buckets**

In the following chapters, the thesis will apply the information economics theory and the associated feature types of search, experience, and trust to the previously derived category buckets and their assigned attributes. The attributes will be decomposed into primary and secondary feature types, resulting in the overall buckets of feature types driven by their assigned attributes.

### **4.2.1 Product-Market Fit**

The "Product-Market Fit" bucket comprises the following attributes: (i) *compatibility*, (ii) *synergies*, and (iii) *market positioning*. The bucket addresses factors that affect both parties' product, service, or technology offerings and processes, along with their influence on customer experience and market positioning. Thus, this bucket adopts a macro perspective, setting it apart from other categories. Applying information economics theory to *compatibility* reveals that it

is primarily composed of search features. One can observe a startup's product, service, technology offering, and technology readiness before interacting with the startup. Additionally, the nature of the startup's offering can be observed before beginning a collaboration, and it can be determined whether it strengthens or complements the incumbent based on the incumbent's current status resources. When applying information economics to *synergies*, the thesis argues to classify the attribute of synergies as primarily search-feature and secondarily experience-feature driven. Potential synergies can be observed before the start of the corporate-venture collaboration based on the supporting effect on core competencies and/ or on the innovation business by the corporate entity. However, synergies are subject to customer interaction and the conversion of anticipated additional value into realized value in the form of measurable results, e.g., customer engagement and financial values, after the start of the collaboration. Thus, one can argue that the attribute consists secondarily of an experience feature. Lastly, based on the information economics theory, the thesis classifies *market positioning* as primarily consisting of a search feature because gaining a better market position can be filtered with indicators such as the startup's offering and its potential effect on customer interaction (search). However, the revealing effect on the superior market position towards competitors will be apparent after the start of the corporate-venture collaboration (experience). Thus, a significant portion of the attribute can be classified as an experience feature.

#### **4.2.2 Organizational-Cultural Fit**

The “Organizational-Cultural Fit” bucket encompasses the following attributes: (i) *decision-making speed & flexibility*, (ii) *resilience*, and (iii) *goal commitment*. It touches upon several aspects of the corporate-venture collaboration process crucial to a successful outcome, considering the intersection of macro- and micro-aspects. Applying information economics theory to *decision-making speed & flexibility* reveals that this attribute primarily involves experience, as incumbents must actively engage with the startup to observe its decision-making in real

situations. While some search features can provide preliminary insights, such as information on founder size or leadership background through bios or case studies, these rarely reveal the startup's true flexibility under pressure. Fast and flexible decision-making practices become evident through ongoing interactions, like collaborative discussions or pilot projects, where incumbents can directly experience the startup's ability to make quick and effective decisions. Thus, the attribute can be classified as primarily experience-feature and secondarily search-feature-driven. The thesis argues from the information economics perspective that *resilience* primarily comprises experience features. It requires ongoing observation during collaboration and emerging obstacles and cannot be easily evaluated through preliminary information or search. Incumbents need to experience the startup's reaction to emerging challenges to determine if it has the resilience needed for successful collaboration. When applying information economics theory to the attribute of *goal commitment*, the thesis suggests that it primarily consists of experience features and secondarily of trust features because commitment to shared goals emerges over the course of a relationship (experience) as incumbents observe how well the startup prioritizes collective success over individual interests. Nevertheless, trust becomes relevant as incumbents rely on signals like consistent alignment of actions with stated intentions, which helps establish confidence in the startup's dedication to mutual objectives.

#### **4.2.3 Management-Individual Fit**

The "Management-Individual Fit" bucket encompasses the following attributes: (i) *integrity*, (ii) *professionalism*, and (iii) *long-term exit*. The bucket touches upon the underlying forces for a corporate-venture collaboration that refer to the individual management level of the startup. Thus, the bucket determines attributes on a deeper level and takes a micro-perspective approach. Applying the information economics theory reveals that the attribute of *integrity* is primarily about trust, as the incumbent relies on the belief in the startup's ethical consistency and moral alignment. Some aspects of integrity may be observable through experience as the

incumbent interacts with the leadership during the collaboration process and witnesses their behavior in challenging situations. Thus, the attribute primarily consists of trust features and, secondarily, of experience features. When applying the information economics theory to the attribute of *professionalism*, the thesis suggests that it is primarily built on trust and secondarily built on elements of experience. Corporations rely on trust that the startup will maintain a high standard of professionalism throughout the collaboration. However, the retention of professionalism within the startup itself will only be able to be determined after a long period of time. It might even remain a partially permanent unknown factor for the incumbent. Professionalism is challenging to observe upfront fully, even though some factors, such as well-prepared materials, clear communication, and respectful interaction with the incumbent, serve as indicators. Despite that, those indicators only emerge with an ongoing interaction with the startup and thus become evident through experience. Drawing on information economics theory, the attribute of *long-term exit* primarily consists of trust factors that are challenging to observe even over time. Startup leadership might not reveal their true intentions by changing their behavior toward the corporation, making it nearly impossible to observe before the exit event occurs. Thus, a long-term exit becomes evident only a long time after the collaboration process starts, as it is inherently long-term.

## **5. Feature Type Distribution & Dominance Model**

Classifying the attributes using information economics into the respective feature types reveals each bucket's distribution of these feature types. In Figure 1, the thesis summarizes the selected attributes and category buckets, along with their classification by information economics. With the aid of Figure 1, one can comprehend the composition of attributes within each bucket. Further, Figure 2 highlights the uniqueness of the Organizational-Cultural Fit bucket, which encompasses all three feature types. Each bucket has its own primary feature type based on the selected attributes. The primary feature type of product-market fit is search, while the primary

feature type of organizational-cultural fit is experience. The primary feature type of Management-Individual Fit is trust.

| Buckets                         | Attributes                              | Feature-Types<br>(search / experience / trust) |
|---------------------------------|-----------------------------------------|------------------------------------------------|
| (1) Product-Market Fit          | (i) Compatibility                       | Primarily (search)                             |
|                                 | (ii) Synergies                          | Primarily (search), Secondarily (experience)   |
|                                 | (iii) Market Positioning                | Primarily (search), Secondarily (experience)   |
| (2) Organizational-Cultural Fit | (i) Decision-Making Speed & Flexibility | Primarily (experience), Secondarily (search)   |
|                                 | (ii) Resilience                         | Primarily (experience)                         |
|                                 | (iii) Goal Commitment                   | Primarily (experience), Secondarily (trust)    |
| (3) Management-Individual Fit   | (i) Integrity                           | Primarily (trust), Secondarily (experience)    |
|                                 | (ii) Professionalism                    | Primarily (trust), Secondarily (experience)    |
|                                 | (iii) Long-Term Exit                    | Primarily (trust)                              |

Figure 1: Classification of Attributes by Information Economics Theory (own illustration)

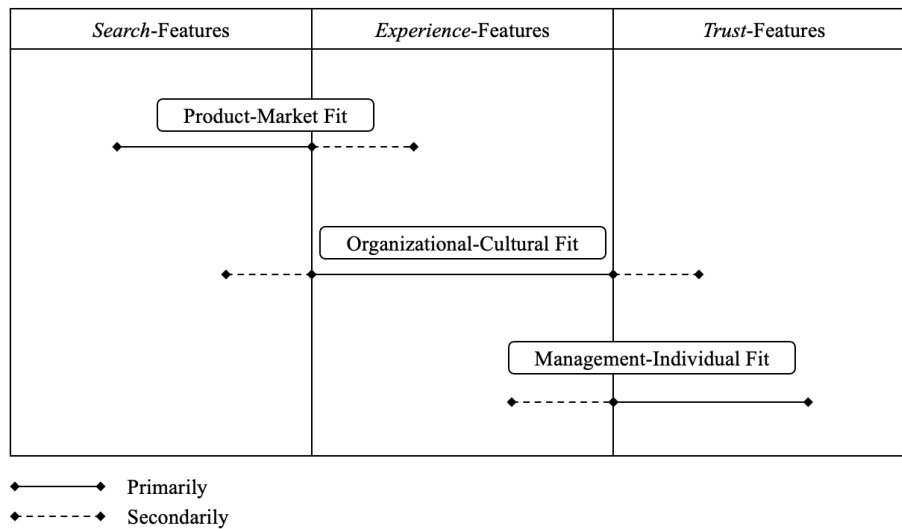


Figure 2: Dominance Model of Buckets Feature-Type Distribution (own illustration)

## 6. Decision Framework of Corporate-Venture Collaboration

The thesis indicates that information economics enables a decision framework for corporate-venture collaboration. Literature simplifies complex dynamics using scoring models to evaluate business ideas and innovation potential. Richman (1962) founded a scoring model to assess product innovation compatibility with internal resources (Appendix 4). Weiber, Kollmann, and Pohl (2006) applied this method to evaluate a product's attractiveness based on company resources (Appendix 5). Thus, the scoring model method provides a reasonable choice for

evaluation and might be adapted to the realm of corporate-venture collaboration. It infuses them with the theory of information economics and provides the corporate perspective when considering potential collaboration in the form of (1) *non-equity collaboration*, (2) *minority investment*, and (3) *acquisition*.

In Figure 3, the raw outlines of the corporate-venture collaboration framework can be observed. The framework is built upon the following: First, it displays the attributes and their associated buckets that can be described as *test elements*. Secondly, the attributes are assigned relative weights based on their importance to the corporation (*test weight*). The allocation of weights to attributes varies by corporate situation. Different companies view the importance of each attribute differently, tailoring the framework to their needs. The attribute's individual weights will also be aggregated on the higher bucket level by adding the weights. Regardless of the individual weights of the attributes and buckets, the sum of all relative weights will always have to add up to a total of 1. Additionally, a minimum relative weight of 0.1 per bucket must be given.

| Buckets & Attributes                  | Relative Weight (A) | Feature Type (B)<br>(search / experience / trust) | Realization Degree (C) |   |   |   |   |   |   |   |   |      | Score<br>(A*B*C) |   |
|---------------------------------------|---------------------|---------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|------|------------------|---|
|                                       |                     |                                                   | Low                    |   |   |   |   |   |   |   |   | High |                  |   |
|                                       |                     |                                                   | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10   |                  |   |
| Product-Market Fit                    | X                   | primary search (=surplus)                         |                        |   |   |   |   |   |   |   |   |      | X                |   |
| ▪ Compatibility                       | x                   | 1.5                                               |                        |   |   |   |   |   | x |   |   |      |                  | x |
| ▪ Synergies                           | x                   | 1.5                                               |                        |   |   |   |   |   |   |   | x |      |                  | x |
| ▪ Market Positioning                  | x                   | 1.5                                               |                        |   |   |   |   |   | x |   |   |      |                  | x |
| Organizational-Cultural Fit           | X                   | primary experience (=neutral)                     |                        |   |   |   |   |   |   |   |   |      | X                |   |
| ▪ Decision-Making Speed & Flexibility | x                   | 1                                                 |                        |   |   |   | x |   |   |   |   |      |                  | x |
| ▪ Resilience                          | x                   | 1                                                 |                        |   |   |   |   |   | x |   |   |      |                  | x |
| ▪ Goal Commitment                     | x                   | 1                                                 |                        |   |   |   | x |   |   |   |   |      |                  | x |
| Management-Individual Fit             | X                   | primary trust (=markdown)                         |                        |   |   |   |   |   |   |   |   |      | X                |   |
| ▪ Integrity                           | x                   | 0.5                                               |                        | x |   |   |   |   |   |   |   |      | x                |   |
| ▪ Professionalism                     | x                   | 0.5                                               |                        |   |   | x |   |   |   |   |   |      | x                |   |
| ▪ Long-Term Exit                      | x                   | 0.5                                               |                        | x |   |   |   |   |   |   |   |      | x                |   |
| Total                                 | 1                   | Total sum                                         |                        |   |   |   |   |   |   |   |   | X    |                  |   |

**Rating scale:** (1.5 – 5.5) *non-equity collaboration* (>5.5 – 9.5) *minority investment* (>9.5 – 13.5) *acquisition*

*Figure 3: Decision Framework of Corporate-Venture Collaboration*

*(based on Richman 1962 & Weiber, Kollmann, and Pohl 2006 & own illustration)*

Thirdly, the framework merges the information economics theory with the corporate-venture collaboration decision process by adding the bucket's primary feature type as a *test factor*.

Depending on the bucket, the framework adds an additional multiplier (surcharge of 1.5 / neutral of 1 / markdown of 0.5) to account for the dominant nature of each bucket. In the context of (1) *Product-Market Fit*, the framework adds a multiplier of 1.5 that acts as a kind of surcharge and considers the primarily search-feature-driven nature of the bucket. The framework adds a surcharge to boost the resulting score since search features can most likely be identified and validated before the transaction or collaboration process starts.

In the case of (2) *Organizational-Cultural Fit*, the framework neither puts a surcharge nor a markdown onto the bucket attributes since the bucket touches upon all three feature types and is primarily experience-driven, resulting in a neutral test factor within the framework. The bucket attributes can partially be validated and forecasted along the process even before the collaboration starts. However, simultaneously, the attributes must be observed throughout the collaboration process and can only be fully validated through experience, balancing out the primary search-feature-driven surcharge and the primary trust-feature-driven markdown. Regarding (3) *Management-Individual Fit*, the framework adds a markdown multiplier of 0.5 since the bucket is primarily trust-feature driven. It can only be observed for a longer period of time after the collaboration starts, so it can only be partially suspected. This uncertainty factor, the largest among all three buckets, is considered by the framework with a markdown.

For the sake of coherence, consistency, and simplicity, the framework chose 1.5 as a surcharge, 1 for neutrality, and 0.5 as a markdown, resulting in a theoretical result scale of 0 to 15.

Moreover, the framework builds upon a *test degree* section in which the corporation must assess each attribute's realization degree at a given time when applying the model. From the corporation's perspective, this degree of fulfillment must be assessed on a rating scale from 1 (= low) to 10 (= high). Finally, the relative weight (test weight), primary feature type (test factor), and realization degree (test degree) are multiplied for individual scores, eventually adding up to a total sum. According to the total sum, the framework suggests different types of corporate-

venture collaboration with a total sum between  $>1.5 - 5.5$  for non-equity collaboration, a total sum between  $>5.5 - 9.5$  for minority investment, and a total sum between  $>9.5 - 13.5$  for acquisition. The framework also suggests a minimum threshold of 1.5 that must be reached to pay attention to further procedures and to account for a certain level of risk aversion of the corporation (Appendix 6).

The user of the framework can influence the model in the following ways: (i) *relative weights*, (ii) *minimum score*, and (iii) *realization degree*. The relative weights can be adapted to a corporation's needs. Some may prioritize Management-Individual Fit. However, according to information economics theory, these attributes are difficult to observe and require validation. By incorporating a markdown multiplier, the framework helps mitigate overemphasis on these attributes, especially in early negotiation phases between corporate and startup. This avoids quickly inflating scores at the start, preventing corporations from resorting to capital-intensive collaborations (minority investment and acquisition) due to extreme weightings on Management-Individual Fit, driven by trust characteristics. Secondly, the default minimum score of 1.5 is optional. It is advisable for moderate to conservative risk aversion and ensures a clearer result distribution (4-point range per collaboration type). However, corporations with varying risk levels can adjust the minimum score lower for risk-seeking firms and higher for risk-averse corporations. Thirdly, users can affect outcomes by selecting the realization level of each attribute. The completion method and data basis vary by corporation and decision-makers. Users can specify the level independently if the realization falls within the 1 to 10 range. Appendices 7, 8, and 9 show one example of each possible type of corporate-startup collaboration, which is inherently part of the framework and derived from the attribute values per test category.

## **7. Conclusion**

The thesis offers insight into corporate-startup collaboration and explores how these partnerships can be better understood. The thesis contributes to the literature by providing a

classification of the most common forms of corporate-startup collaboration into three collaboration types (*non-equity collaboration*, *minority investment*, and *acquisition*). This offers a better classification and simplification to the theoretical and practical discussion of the possible results of corporate-startup collaboration. Further, the thesis addresses the call by De Groote and Backmann (2020) and Giglio et al. (2023) to contribute to the understanding of collaboration types by discussing and structuring decision attributes that influence collaboration forms by examining and assessing them based on their information economic feature types. The thesis advances the academic understanding of such attributes by applying a proven theoretical foundation to existing decision attributes. Information economics contributes in a special way to the understanding of corporate-startup collaboration because if the information economic property significantly affects the decision-making process, the thesis and information economics offer a way to extract more explanatory content in the emergence of collaboration forms. It also accounts for the application from a dynamic perspective since the theory and its feature types adapt throughout a collaboration process. Finally, it advances managerial practices by following the call from Demir and Lukes (2024) to provide more practical decision frameworks. Further, the decision model can rely on a proven theoretical concept and thus more information content as a decision foundation. As opposed to alternative frameworks, such as the decision model by Demir and Lukes (2024) based on a systematic literature review, the decision model derived from the thesis provides more information content by introducing additional information, such as information on economic feature types influencing the model's outcome.

## **8. Limitations**

Akin to any research, the thesis comes with several limitations. Limitations shall be distinguished based on their nature: (i) *methodological constraints* and (ii) *general constraints*.

Methodological constraints arise from limitations in the theoretical foundation and decision model. Information economics offers a consensus on primary attribute types, but interpretations

of secondary types vary due to subjective selection. Similarly, scoring models have constraints related to validity, which depend on user qualifications and data quality, particularly in the realization degree section, which relies on available information. By defining the buckets and attributes, the decision model restricts data scope and its reflection of reality. Thus, it offers an oversimplified view and may create a false sense of security if users over-rely on these models. The thesis must acknowledge methodological limitations in attribute analysis and selection. Attributes and their feature types were influenced by literature and subjective processes. Aggregating attributes into buckets depends on personal interpretation, affecting their primary type and the decision model's test factors (surcharge, neutral, markdown). Additionally, surplus, neutral, and markdown values are based on assumptions that some information economics features significantly impact the decision process more than others.

The decision model is limited to a scoring range of 0.65 to 13.5. Scores between 0 and 15 are possible, but values beyond lack interpretation as they exclude all pre-determined attributes. Appendix X illustrates the applicable range and limits for collaboration types. The upper range is linked to the maximum weighting of surplus, with Product-Market Fit at 0.8 and other buckets at a minimum of 0.1, with realization degrees of 10 points (Appendix 10). The lower range derives from the markdown's maximum weighting, with Management-Individual Fit at 0.8 and other buckets at a minimum of 0.1, with realization degrees of 10 points (Appendix 11). Finally, the last methodological limitations are the three non-touchable levers the model uses to provide a certain level of sensemaking. Every bucket in the decision model must have a relative weight of 0.1. Further, the given values of test factors for surplus (1.5), neutral (1), and markdown (0.5) cannot be changed. Lastly, the test degrees cannot exceed the value range of 1 to 10. The general constraints within scholarly literature refer to the quality of the thesis, e.g., the quality of cited sources. The thesis aimed to mitigate the use of poor sources by using various highly ranked academic journals.

## 9. Outlook

The results of the thesis highlight opportunities for future research in two realms: (i) *current scope of conceptualization* and (ii) *beyond the scope of conceptualization*. Regarding the current scope of the concept, future research could address theoretical, empirical, and practical dimensions. For the theoretical aspect, scholars may analyze how decision attributes and their economic features relate to collaboration forms. They might also explore matching information economic types to decision attributes to reach a consensus on primary features. Additionally, a framework could be developed to understand how decision attributes influence collaboration, with economic features serving as moderators or mediators. Regarding the empirical dimension, scholars should develop an empirical measurement model for decision-making that focuses on variable significance, scales, and causal relationships in collaboration. A static or dynamic data collection approach must be considered to analyze feasibility from a corporate perspective. Evaluating and verifying hypotheses tied to the model while examining validity criteria is essential. Furthermore, translating results from the measurement model into a practical decision model, like a scoring model, can enhance application. Collecting and interpreting feedback can help refine evaluation parameters and weighting findings.

Further research beyond the scope of the thesis could explore the impact of government incentives, like tax benefits, on corporate-startup collaborations. Additionally, the influence of corporate governance on the types and evolution of these collaborations warrants investigation. Lastly, scholars may examine how artificial intelligence affects decision-making and evaluation in corporate-startup collaboration, potentially leading to a shift from human to machine-driven leadership, referred to as "artificial leadership" by Kollmann, Kollmann, and Kollmann (2023).

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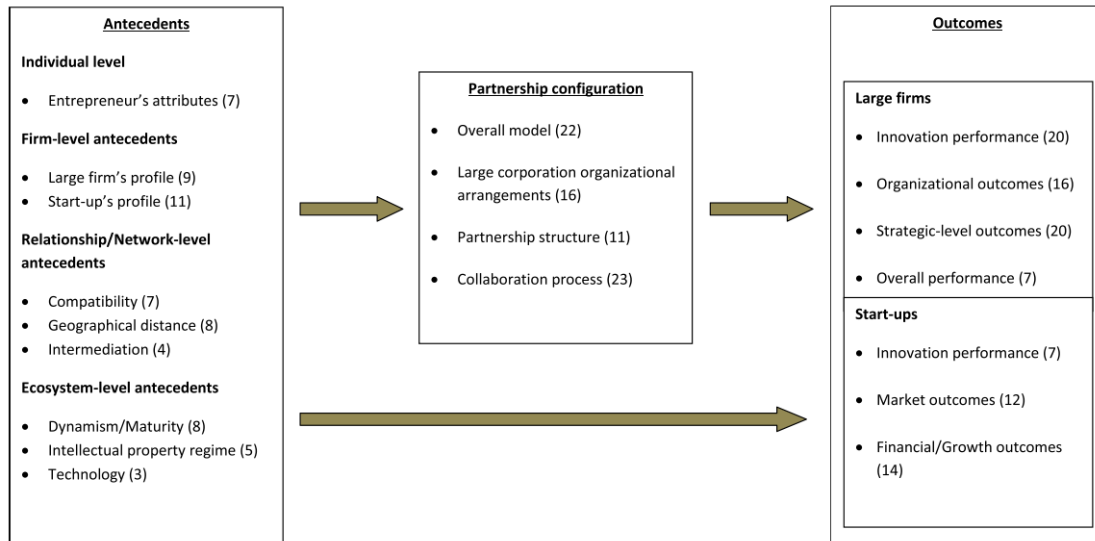
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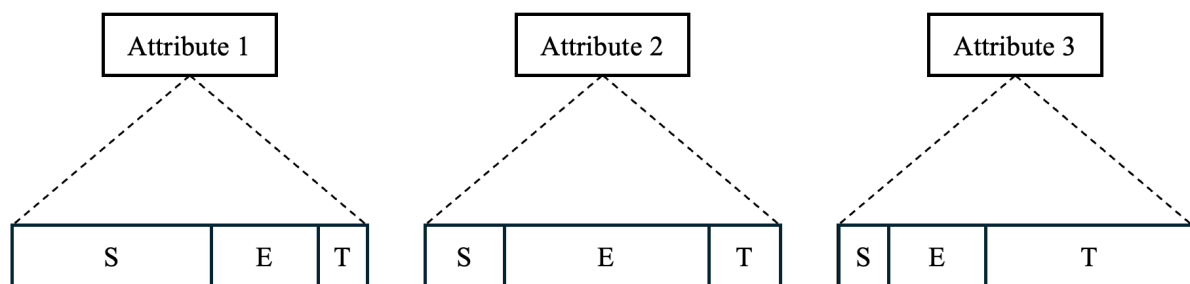
## V. Appendices

### Appendix 1: Collaboration between large corporations and startups: an integrative framework (Giglio et al. 2023)



*Note: The values in parentheses represent the number of articles that dealt with the topic*

### Appendix 2: Information economics theory logic applied to attributes (own illustration)



S – Search    E – Experience    T – Trust

### Appendix 3: Practical examples of the relevance of decision attributes (own illustration)

| Decision Attributes                 | Examples                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compatibility                       | For example, a large corporation within the car manufacturing industry is looking to streamline its logistics processes. In this regard, they found a startup that is offering an AI-enabled software solution to effectively monitor industry processes that can be specialized for car manufacturing processes.                                                                                                                                                                                                                                                                                                                                                                                              |
| Synergies                           | For example, a startup that has developed a highly efficient AI-driven customer support chatbot capable of handling complex queries with greater accuracy and speed than traditional automated systems. When integrated into the customer service operations of a large telecommunications company, this chatbot not only improves response times but also enables the corporation to offer a more personalized, high-quality support experience.                                                                                                                                                                                                                                                              |
| Market Positioning                  | For example, a retail company partnering with a startup that provides personalized recommendation algorithms can improve customer experience by offering tailored product suggestions. This enhancement attracts new customers seeking a personalized shopping experience and helps retain existing ones.                                                                                                                                                                                                                                                                                                                                                                                                      |
| Decision-Making Speed & Flexibility | For example, consider an incumbent in the retail industry that partners with a tech startup to develop a mobile app that enhances the in-store shopping experience. Midway through the project, the startup encounters limitations with their data provider's API, which disrupts real-time inventory updates and threatens the timeline. To address this, the startup swiftly assembles a team, selects an alternative provider with a more reliable API, and reallocates resources to integrate the new solution without delaying the project.                                                                                                                                                               |
| Resilience                          | For example, during a pilot project, a startup might encounter a major technical issue that threatens timelines. Instead of giving up or blaming external factors, the startup actively seeks alternative solutions, communicates transparently, and maintains a positive outlook, demonstrating resilience.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Goal Commitment                     | For example, a healthcare provider partners with a health-tech startup to improve patient outcomes through data analytics. The startup prioritizes data privacy and compliance with healthcare regulations, even implementing additional security measures at its own cost. This commitment aligns with the healthcare provider's mission to protect patient data and aligns deeply with the shared goals stated before the corporate-venture collaboration.                                                                                                                                                                                                                                                   |
| Integrity                           | For example, a startup's leadership voluntarily discloses a potential conflict of interest in a joint project, even though addressing it could lead to additional scrutiny and possibly delay the project. By being upfront about this issue, the startup demonstrates a commitment to transparency and ethical standards, prioritizing the integrity of the partnership over immediate convenience.                                                                                                                                                                                                                                                                                                           |
| Professionalism                     | For example, the startup's leadership submits detailed project reports outlining points addressed, derived learnings, and emerging uncertainties to mitigate potential risks for upcoming tasks. By providing an extensive report to the corporation with a proactive component of overdelivering, the startup demonstrates a certain level of professionalism that the incumbent positively receives. Further, in a meeting with a potential corporate partner, the startup's leadership arrives well-prepared, clearly presenting how their solution aligns with the corporation's goals. They communicate concisely, listen carefully, and respond thoughtfully, demonstrating respect and professionalism. |
| Long-Term Exit                      | For example, startup founders sell to a competitor which would harm the existing corporate since the competitor would gain the knowledge and access to the startups novel technology.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

#### Appendix 4: Evaluation Matrix – Product Fit (Richman 1962)

| Sphere of Performance               | (A)<br>Relative<br>Weight | (B)<br>Product Compatibility<br>Values |    |    |    |    |    |    |    |    |    | (C)<br>A × B |       |
|-------------------------------------|---------------------------|----------------------------------------|----|----|----|----|----|----|----|----|----|--------------|-------|
|                                     |                           | 0                                      | .1 | .2 | .3 | .4 | .5 | .6 | .7 | .8 | .9 |              | 1.0   |
| Company personality<br>and goodwill | .20                       |                                        |    |    |    |    |    | x  |    |    |    |              | .120  |
| Marketing                           | .20                       |                                        |    |    |    |    |    |    |    |    | x  |              | .180  |
| Research and development            | .20                       |                                        |    |    |    |    |    |    | x  |    |    |              | .140  |
| Personnel                           | .15                       |                                        |    |    |    |    |    | x  |    |    |    |              | .090  |
| Finance                             | .10                       |                                        |    |    |    |    |    |    |    |    | x  |              | .090  |
| Production                          | .05                       |                                        |    |    |    |    |    |    |    | x  |    |              | .040  |
| Location and facilities             | .05                       |                                        |    |    | x  |    |    |    |    |    |    |              | .015  |
| Purchasing and supply               | .05                       |                                        |    |    |    |    |    |    |    |    | x  |              | .045  |
| Total                               | 1.00                      |                                        |    |    |    |    |    |    |    |    |    |              | .720* |

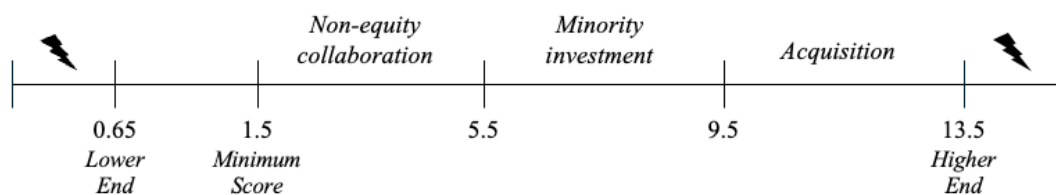
\* Rating Scale: 0-.40, poor; .41-.75, fair; .76-1.0, good. Present minimum acceptance rate: .70.

#### Appendix 5: Scoring model for the attractiveness assessment of product ideas (Weiber, Kollmann, and Pohl 2006)

| Ressourcenpotenziale     | relative Gewichtung (A) | Nutzungsmöglichkeit für Produktidee (B) |   |   |   |   |   |   |   |   |   | Kriterienwerte |       |
|--------------------------|-------------------------|-----------------------------------------|---|---|---|---|---|---|---|---|---|----------------|-------|
|                          |                         | 0                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10             | (A*B) |
| ■ Unternehmensimage      | 0,20                    |                                         |   |   |   |   |   |   | x |   |   |                | 1,40  |
| ■ Marketing-Know-how     | 0,20                    |                                         |   |   |   |   |   |   |   |   | x |                | 1,80  |
| ■ F&E-Knowkow            | 0,20                    |                                         |   |   |   |   |   |   |   | x |   |                | 1,60  |
| ■ Personalqualifikation  | 0,15                    |                                         |   |   |   |   |   |   | x |   |   |                | 1,05  |
| ■ Finanzstärke           | 0,10                    |                                         |   |   |   | x |   |   |   |   |   |                | 0,40  |
| ■ Produktionsverfahren   | 0,05                    |                                         |   |   |   |   |   |   |   | x |   |                | 0,40  |
| ■ Produktionskapazitäten | 0,05                    |                                         |   |   | x |   |   |   |   |   |   |                | 0,15  |
| ■ Vertriebspersonal      | 0,05                    |                                         |   |   |   |   | x |   |   |   |   |                | 0,25  |
| Gesamt:                  | 1,00                    |                                         |   |   |   |   |   |   |   |   |   | 7,05           |       |

Beurteilungsskala: 0 bis 4: schlecht 4,1 bis 7,5: mittel 7,6 bis 10: gut  
Mindestpunktwert für Weiterverfolgung der Produktidee: 7,0

## Appendix 6: Score range of the practical applicable interpretation range (own illustration)



## Appendix 7: Acquisition case decision model (own illustration)

### Case Acquisition

| Attributes                          | Relative Weight | Feature Type      | Realization Degree |   |   |   |   |   |   |   |      |           | Score          |
|-------------------------------------|-----------------|-------------------|--------------------|---|---|---|---|---|---|---|------|-----------|----------------|
|                                     |                 |                   | Low                |   |   |   |   |   |   |   | High |           |                |
| <b>Product-Market Fit</b>           | <b>0,60</b>     | <b>Search</b>     | 1                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9    | 10        | <b>7,8</b>     |
| Compatibility                       | 0,200           | 1,50              |                    |   |   |   |   |   |   |   | 9    |           | 2,7            |
| Synergies                           | 0,200           | 1,50              |                    |   |   |   |   |   |   |   | 9    |           | 2,7            |
| Market Positioning                  | 0,200           | 1,50              |                    |   |   |   |   |   |   | 8 |      |           | 2,4            |
| <b>Organizational-Cultural Fit</b>  | <b>0,30</b>     | <b>Experience</b> |                    |   |   |   |   |   |   |   |      |           | <b>1,8</b>     |
| Decision-Making Speed & Flexibility | 0,100           | 1,00              |                    |   |   |   | 6 |   |   |   |      |           | 0,6            |
| Resilience                          | 0,100           | 1,00              |                    |   |   |   |   |   | 7 |   |      |           | 0,7            |
| Goal Commitment                     | 0,100           | 1,00              |                    |   |   |   | 5 |   |   |   |      |           | 0,5            |
| <b>Management-Individual Fit</b>    | <b>0,10</b>     | <b>Trust</b>      |                    |   |   |   |   |   |   |   |      |           | <b>0,23333</b> |
| Integrity                           | 0,033           | 0,50              |                    |   |   |   | 5 |   |   |   |      |           | 0,083          |
| Professionalism                     | 0,033           | 0,50              |                    |   |   |   |   | 4 |   |   |      |           | 0,067          |
| Long-Term Exit                      | 0,033           | 0,50              |                    |   |   |   |   | 5 |   |   |      |           | 0,083          |
| Total                               | 1,00            |                   |                    |   |   |   |   |   |   |   |      | Total sum | 9,8333333      |

| Rating scale             | from  | to    |
|--------------------------|-------|-------|
| non-equity collaboration | 1,50  | 5,50  |
| minority investment      | >5,5  | 9,50  |
| acquisition              | >9,50 | 13,50 |

## Appendix 8: Non-equity collaboration case decision model (own illustration)

### Case non-equity collaboration

| Attributes                          | Relative Weight | Feature Type      | Realization Degree |   |   |   |   |   |   |   |      |           | Score      |
|-------------------------------------|-----------------|-------------------|--------------------|---|---|---|---|---|---|---|------|-----------|------------|
|                                     |                 |                   | Low                |   |   |   |   |   |   |   | High |           |            |
| <b>Product-Market Fit</b>           | <b>0,60</b>     | <b>Search</b>     | 1                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9    | 10        | <b>3,6</b> |
| Compatibility                       | 0,200           | 1,50              |                    |   |   |   | 5 |   |   |   |      |           | 1,5        |
| Synergies                           | 0,200           | 1,50              |                    |   |   |   | 4 |   |   |   |      |           | 1,2        |
| Market Positioning                  | 0,200           | 1,50              |                    |   |   |   |   | 3 |   |   |      |           | 0,9        |
| <b>Organizational-Cultural Fit</b>  | <b>0,30</b>     | <b>Experience</b> |                    |   |   |   |   |   |   |   |      |           | <b>1,5</b> |
| Decision-Making Speed & Flexibility | 0,100           | 1,00              |                    |   |   |   | 5 |   |   |   |      |           | 0,5        |
| Resilience                          | 0,100           | 1,00              |                    |   |   |   |   |   | 6 |   |      |           | 0,6        |
| Goal Commitment                     | 0,100           | 1,00              |                    |   |   |   |   | 4 |   |   |      |           | 0,4        |
| <b>Management-Individual Fit</b>    | <b>0,10</b>     | <b>Trust</b>      |                    |   |   |   |   |   |   |   |      |           | <b>0,2</b> |
| Integrity                           | 0,033           | 0,50              |                    |   |   |   | 5 |   |   |   |      |           | 0,083      |
| Professionalism                     | 0,033           | 0,50              |                    |   |   |   |   | 3 |   |   |      |           | 0,050      |
| Long-Term Exit                      | 0,033           | 0,50              |                    |   |   |   |   |   | 4 |   |      |           | 0,067      |
| Total                               | 1,00            |                   |                    |   |   |   |   |   |   |   |      | Total sum | 5,3        |

| Rating scale             | from  | to    |
|--------------------------|-------|-------|
| non-equity collaboration | 1,50  | 5,50  |
| minority investment      | >5,5  | 9,50  |
| acquisition              | >9,50 | 13,50 |

## Appendix 9: Minority investment case decision model (own illustration)

### Case Minority Investment

| Attributes                          | Relative Weight | Feature Type      | Realization Degree |   |   |   |   |   |   |   |   |           | Score       |
|-------------------------------------|-----------------|-------------------|--------------------|---|---|---|---|---|---|---|---|-----------|-------------|
|                                     |                 |                   | Low                |   |   |   |   |   |   |   |   | High      |             |
|                                     |                 |                   | 1                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10        |             |
| <b>Product-Market Fit</b>           | <b>0,60</b>     | <b>Search</b>     |                    |   |   |   |   |   |   |   |   |           | <b>5,4</b>  |
| Compatibility                       | 0,200           | 1,50              |                    |   |   |   |   |   | 7 |   |   |           | 2,1         |
| Synergies                           | 0,200           | 1,50              |                    |   |   |   |   | 6 |   |   |   |           | 1,8         |
| Market Positioning                  | 0,200           | 1,50              |                    |   |   | 5 |   |   |   |   |   |           | 1,5         |
| <b>Organizational-Cultural Fit</b>  | <b>0,30</b>     | <b>Experience</b> |                    |   |   |   |   |   |   |   |   |           | <b>1,4</b>  |
| Decision-Making Speed & Flexibility | 0,100           | 1,00              |                    |   |   |   | 5 |   |   |   |   |           | 0,5         |
| Resilience                          | 0,100           | 1,00              |                    |   |   |   | 5 |   |   |   |   |           | 0,5         |
| Goal Commitment                     | 0,100           | 1,00              |                    |   | 4 |   |   |   |   |   |   |           | 0,4         |
| <b>Management-Individual Fit</b>    | <b>0,10</b>     | <b>Trust</b>      |                    |   |   |   |   |   |   |   |   |           | <b>0,25</b> |
| Integrity                           | 0,033           | 0,50              |                    |   |   |   | 6 |   |   |   |   |           | 0,100       |
| Professionalism                     | 0,033           | 0,50              |                    |   |   | 4 |   |   |   |   |   |           | 0,067       |
| Long-Term Exit                      | 0,033           | 0,50              |                    |   |   |   | 5 |   |   |   |   |           | 0,083       |
| Total                               | 1,00            |                   |                    |   |   |   |   |   |   |   |   | Total sum | 7,05        |

|                          |       |       |
|--------------------------|-------|-------|
| Rating scale             | from  | to    |
| non-equity collaboration | 1,50  | 5,50  |
| minority investment      | >5,5  | 9,50  |
| acquisition              | >9,50 | 13,50 |

## Appendix 10: The higher end of the practically applicable score value range (own illustration)

| Attributes                          | Relative Weight | Feature Type      | Realization Degree |   |   |   |   |   |   |   |   |           | Score      |
|-------------------------------------|-----------------|-------------------|--------------------|---|---|---|---|---|---|---|---|-----------|------------|
|                                     |                 |                   | Low                |   |   |   |   |   |   |   |   | High      |            |
|                                     |                 |                   | 1                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10        |            |
| <b>Product-Market Fit</b>           | <b>0,80</b>     | <b>Search</b>     |                    |   |   |   |   |   |   |   |   |           | <b>12</b>  |
| Compatibility                       | 0,267           | 1,50              |                    |   |   |   |   |   |   |   |   | 10        | 4          |
| Synergies                           | 0,267           | 1,50              |                    |   |   |   |   |   |   |   |   | 10        | 4          |
| Market Positioning                  | 0,267           | 1,50              |                    |   |   |   |   |   |   |   |   | 10        | 4          |
| <b>Organizational-Cultural Fit</b>  | <b>0,10</b>     | <b>Experience</b> |                    |   |   |   |   |   |   |   |   |           | <b>1</b>   |
| Decision-Making Speed & Flexibility | 0,033           | 1,00              |                    |   |   |   |   |   |   |   |   | 10        | 0,3333333  |
| Resilience                          | 0,033           | 1,00              |                    |   |   |   |   |   |   |   |   | 10        | 0,3333333  |
| Goal Commitment                     | 0,033           | 1,00              |                    |   |   |   |   |   |   |   |   | 10        | 0,3333333  |
| <b>Management-Individual Fit</b>    | <b>0,10</b>     | <b>Trust</b>      |                    |   |   |   |   |   |   |   |   |           | <b>0,5</b> |
| Integrity                           | 0,033           | 0,50              |                    |   |   |   |   |   |   |   |   | 10        | 0,167      |
| Professionalism                     | 0,033           | 0,50              |                    |   |   |   |   |   |   |   |   | 10        | 0,167      |
| Long-Term Exit                      | 0,033           | 0,50              |                    |   |   |   |   |   |   |   |   | 10        | 0,167      |
| Total                               | 1,00            |                   |                    |   |   |   |   |   |   |   |   | Total sum | 13,5       |

## Appendix 11: The lower end of the practically applicable score value range (own illustration)

| Attributes                          | Relative Weight | Feature Type      | Realization Degree |   |   |   |   |   |   |   |   |           | Score       |
|-------------------------------------|-----------------|-------------------|--------------------|---|---|---|---|---|---|---|---|-----------|-------------|
|                                     |                 |                   | Low                |   |   |   |   |   |   |   |   | High      |             |
|                                     |                 |                   | 1                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10        |             |
| <b>Product-Market Fit</b>           | <b>0,10</b>     | <b>Search</b>     |                    |   |   |   |   |   |   |   |   |           | <b>0,15</b> |
| Compatibility                       | 0,033           | 1,50              | 1                  |   |   |   |   |   |   |   |   |           | 0,05        |
| Synergies                           | 0,033           | 1,50              | 1                  |   |   |   |   |   |   |   |   |           | 0,05        |
| Market Positioning                  | 0,033           | 1,50              | 1                  |   |   |   |   |   |   |   |   |           | 0,05        |
| <b>Organizational-Cultural Fit</b>  | <b>0,10</b>     | <b>Experience</b> |                    |   |   |   |   |   |   |   |   |           | <b>0,1</b>  |
| Decision-Making Speed & Flexibility | 0,033           | 1,00              | 1                  |   |   |   |   |   |   |   |   |           | 0,0333333   |
| Resilience                          | 0,033           | 1,00              | 1                  |   |   |   |   |   |   |   |   |           | 0,0333333   |
| Goal Commitment                     | 0,033           | 1,00              | 1                  |   |   |   |   |   |   |   |   |           | 0,0333333   |
| <b>Management-Individual Fit</b>    | <b>0,80</b>     | <b>Trust</b>      |                    |   |   |   |   |   |   |   |   |           | <b>0,4</b>  |
| Integrity                           | 0,267           | 0,50              | 1                  |   |   |   |   |   |   |   |   |           | 0,133       |
| Professionalism                     | 0,267           | 0,50              | 1                  |   |   |   |   |   |   |   |   |           | 0,133       |
| Long-Term Exit                      | 0,267           | 0,50              | 1                  |   |   |   |   |   |   |   |   |           | 0,133       |
| Total                               | 1,00            |                   |                    |   |   |   |   |   |   |   |   | Total sum | 0,65        |