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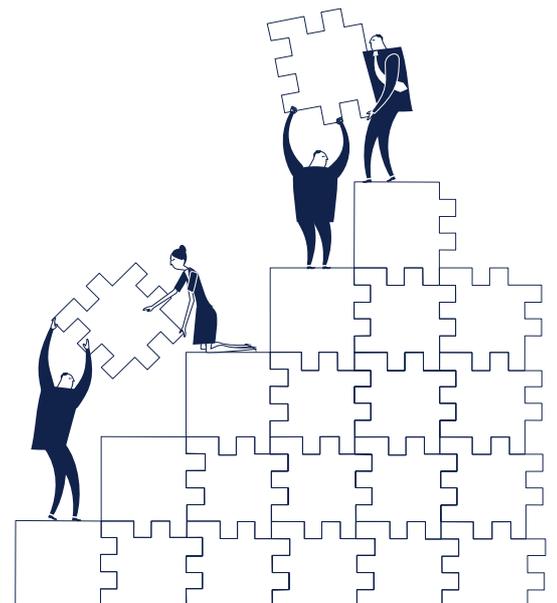
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A socio-ecological approach to strategy

Ramirez and Selsky (2014) contrasted conventional strategic approaches derived from neoclassical economics with a socio-ecological approach to strategy, focusing on the causal textures theory of organizational environments (CTT), to propose that CTT helps strategic planners to better engage the unpredictable uncertainty that characterizes turbulent environments.

This socio-ecological approach to strategic planning is grounded in an open-systems view of an organization's strategic situation, where the core unit of analysis is the shared field of inter-organizational action (Lewin, 1952).

According to Emery and Trist (1965), causal textures theory (CTT) as a part of the social ecology school that studies environmental types, helps strategists to analyse how a system such as an organization and its environment (composed of forces, factors, actors, interactions) interact.

The actors with whom a focal actor interacts are in its more immediate "transactional" environment — which can involve actors in several industries. These interactions in the transaction environment are in turn situated in a broader "contextual environment", made up of factors which the focal actor cannot influence.

Several interacting organizations, their shared environments, and the connexions that link them jointly constitute a "field".

Emery and Trist (1965) demonstrated that the environment has a distinct set of "lawful" relations. CTT uses the symbol L to denote links within an organization, within the environment and between them. It uses the symbol 1 to represent the organization, and the symbol 2 to represent the environment. Consequently, the two-way links between an organization and its environment involve transactional relations: *planning* (inside-out) L12 relations, and *learning* (outside-in) L21 relations. Links within an organization are L11, those within the environment are L22 (Emery and Trist, 1965; Selsky et al., 2007). Organizations act in relation to the environment — and are influenced *by* the environment — through L12, L21 relations. In CTT, the L22 distinguishes the transactional and contextual environments from each other (Ramírez and Selsky, 2014).

Emery and Trist (1965) proposed four causal textures of the environment, distinguished by the salience, complexity and uncertainty of L22 links for the organizations in the field.

- In a "placid random" (type I) causal texture, resources, goals and noxians are randomly distributed in the field. This corresponds to "perfect market" conditions. A successful strategic stance is characterized by experience-based tactics and local optimisation, L11 being the most salient connections.
- In a "placid clustered" (type II) causal texture, resources, goals and/or noxians are located in advantageous positions, corresponding to conditions of imperfect competition with market failure. A successful strategic stance is characterized by securing or accessing "high ground" locations, attending to distinctive competence and resources; L11 and L21 are the most salient connections.
- In a "disturbed reactive" (type III) causal texture, the structure of the field corresponds to an oligopoly with similar organisations in competition. "Game-based" strategies are used, rapid decision making to take an advantage over other actors sharing the same field are characteristic of a causal texture where L11, L21 and L12 are the most salient connections.
- In a "turbulent" causal texture (type IV), the whole common shared ground is in motion, L22 connections become uncertain and changing. Distinctions between L12-L21 and L22 begin to break down. There is no survival for systems acting alone, collaborative strategies among dissimilar organisations in a field are necessary.

McCann and Selsky (1984) highlighted that the experience of turbulence is subjective. If the perception that the links managed by the organization (L11/21/12) are under pressure and may become insufficiently resilient due to changing broader contextual environmental forces to maintain its position or its viability, then turbulence is experienced. It follows that an environment perceived by some organizations as turbulent, may be perceived by other organisations as disturbed or placid.

Ramirez and Selsky (2014) suggest that the distinctive contribution of the social ecology school is to "(...) examine unpredictable uncertainty as 1) a contextual-level phenomenon, produced in a field of tightly coupled interactions which can produce unexpected bifurcations (...) and field-level unintended consequences; and 2) as a distinguishing property of a distinct "texture" of the environment". Due to these characteristics, CTT articulates high-level strategic stances that strategists in organizations can find helpful to pursue in each texture.

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Strategizing in a turbulent environment

Ramirez and Selsky (2014) suggested that neoclassical based strategic planning processes (e.g. Porter 1985) are better suited to pre-turbulent causal textures (types I-III) than to turbulent conditions. For instance, Selsky et al. (2007) established that effective strategizing in a turbulent environment looks first to decrease this turbulence, demanding a focus at the level of the field instead than on the single organisation. They saw this move as being best accomplished through collaboration among functionally dissimilar types of organisations. CTT holds that this inter-organisational cross-sectoral collaboration aims to create enough combined capacity to cope with the macro forces emanating from the L22, helping the field as a whole to become less turbulent while also making the strategic situation of each field member more tractable (Selsky et al. 2007).

Ramirez and Selsky (2014) argued that collaboration does not replace industry competition in firms' transactional environments constitutive of the neoclassical approach. It complements competition with new, field-level kinds of strategic initiatives. Thus, stances in relation to turbulence are often complicated blends of competition and cooperation, including coopetition (Brandenburger and Nalebuff, 1996); but also combining each as separate forms of interaction occurring synchronously. One can compete with some actors and collaborate with others.

These authors rendered explicit three principles in CTT that had remained implicit; and associated them with three corresponding strategic stances for turbulent environments.

<i>CTT Principle</i>	<i>Description</i>	<i>Strategic Stance</i>	<i>Description</i>	<i>Field effects</i>	<i>Leading linkage</i>
Transition principle	Turbulence is not a stable state of a field, but a state that manifests itself in strong moments and which can then dissipate - or accelerate further	Preparation: Stocking up resources	Building reserves of resources in times of no or low turbulence, enabling these organizations to invest those resources to strengthen themselves or to sit out or hide away when turbulence increases.	System can reinforce an existing region with additional capacity	L11
Heterogeneity principle	Turbulence is not necessarily homogenous across a whole field, it may be more salient in some parts of a field than in others.	Relocating: escaping via migration or defence	It involves organizations migrating to locations in the field that are shielded from the worst impacts of turbulence	System can escape to a less turbulent region	L21
Subjectivity principle	While turbulence may be an objective condition ("texture") of a field, it is experienced differently by particular organizations in the field, depending on their "perceived adaptive capacity" to cope.	Reinventing collaboration	It involves enriching organizations and their counterparts with relevant knowledge about the possible unfolding of the turbulence they expect or are beginning to experience so they can negotiate and invent new roles and relationships	System can create a higher-capacity region with others	L12

Table I: CTT Principles and Strategic Stances (source: adapted from Ramirez and Selsky, 2014)

Therefore, collaborative interactions enjoy a higher profile as integral components of corporate and business strategic planning than in the neoclassical approach.

The emphasis of collaboration is not within the "industry", nor on horizontal partnering with competitors, nor on vertical integration ventures with value-chain partners. Instead, here collaboration involves a much more diverse set of actors and stakeholders comprising the broader fields in which organizations operate to together engage contextual level factors that affect or may affect all actors in a field.

Socio-ecologically based strategic planning acknowledges commercial and competitive challenges, but is more sensitized to macro level disruptions and unpredictable uncertainty. It suggests that, when unpredictable uncertainty becomes a more central concern of strategic planners, the strategic situation has shifted into a different, turbulent "texture", which calls for a different mode of strategic planning. This seems particularly relevant to the current situation in the Swiss Watchmaking Industry, as we see below.

Method

Based on six longitudinal, case studies (Yin, 1994) of independent watchmaking companies and reflective observation (Schön, 1984), we empirically examine the application of contrasting strategic stances and principles comparing competitive strategy with the socio-ecological approach in the Swiss Watchmaking field. We used multiple data collection methods: primary data collected with c-level decision-makers, influencers and interpreters through interviews, onsite visits and participation at professional gatherings, and secondary data from internal company reports, consulting and banking reports, the relevant specialized press and the web as a whole. Historical sources have also been used at length. Two co-authors also have managerial and consulting roles in the industry, being able to take a reflective stance on their roles.

Turbulence in the Swiss Watchmaking Field

The Swiss Watchmaking Industry is a leading force in the European Creative Industries. It is the world leader's exporter of watches in terms of value with exports of CHF21 billion in 2014, representing 7% of Swiss Exports (FHS, 2015). The field is composed of the watchmakers, their value chain partners, plus several actors and stakeholders in the creative industries, media, banking, insurance, real estate, non-governmental organizations and education institutions.

The industry is dominated by large groups to which most of the major watch brands belong: Swatch, owner of 18 brands and a large part of the manufacture of watch movements; Richemont, owner of 13 watch brands; and Rolex which owns the Tudor and Rolex brands. These first three were single-handedly responsible for 47% of the total turnover of the watchmaking industry in 2014 (Vontobel, 2015). The fourth major group is the French group LVMH. Alongside these four groups there are several independent family companies, like Patek Philippe, Audemars Piguet, Chopard, Breitling and Bucherer.

Hoffmann and Lecamp (2015) show that the current environment is increasingly complex for new entrants given the control of the manufacture of watch movement by the large groups. This phenomenon can be explained by the recent trend for large watchmaker groups to vertically integrate external suppliers and subcontractors, bringing them in-house. Swatch Group started this process in the late 1980s and the movement gained pace during the 1990s with other groups, like Rolex, Richemont and LVMH joining in. This wave of acquisitions enhanced the value of those suppliers who possessed strategic expertise, in the production of cases, dials, hands and hairsprings. The acquisition of these specialist workshops by large groups meant it was near impossible for smaller brands to obtain supplies and they were forced to find new sources which were increasingly expensive.

Particularly, the decision some years ago by the Swatch Group to cut the delivery of certain parts and mechanical movements to third-party brands had a profound effect on the watchmaking industry as a whole. An automatic movement is basically made up of the *ébauche* (the unassembled basis of the movement with all its components) and the *assortment* (the associated regulating components of the movement). Since its creation, the Swatch Group has enjoyed a largely commanding position in the mechanical movement market of *ébauches* and assortments. In 2002, ETA, the company that manufactured *ébauches* and complete movements was bought up by Swatch Group which in 2006 decided to reduce, and then to permanently stop the delivery of *ébauches* to clients outside the group. Given that nearly 80 per cent of all watch movements produced in Switzerland at that time were based on the ETA *ébauche*, this decision had severe consequences on many independent watch manufacturers. The Swiss Competition Commission (ComCo) was called in to investigate and an amicable settlement was reached; allowing deliveries to be phased out more gradually until 2010. Since 2011, *ébauches* have no longer been delivered to companies outside the Swatch Group – which in effect was a fatal blow for many independent brands (Hoffmann and Lecamp, 2015).

Furthermore, at the end of 2009, Swatch Group indicated that it would stop delivering all complete watch movements and assortments to external clients. In 2010, the ComCo was once again called upon and an investigation to determine whether Swatch Group's decision constituted abuse of its commanding position was conducted the following year. The ComCo's provisional measures stipulated that Swatch Group should continue to ensure delivery of movements and assortments to companies outside the group for the duration of the proceedings; with deliveries being officially reduced from 2012 (Hoffmann and Lecamp, 2015).

Moreover, the planned hardening of conditions to obtain the label *Swiss Made* has been putting pressure on watchmaking independents, particularly those offering low and mid-range price level products. The draft legislation known as *Swissness* stated that in future the Swiss made label would only be awarded if at least 60 per cent of production costs are to be incurred in Switzerland (compared to 50% before the legislation was to be enacted), a proposal that is currently being examined by the Swiss parliament (FHS, 2015).

These developments in the transactional environment were matched up by three important changes in the contextual environment. The Swiss National Bank decided early 2015 to unpeg the Swiss Franc to the Euro,

resulting in an immediate 10% revaluation of the Swiss Franc at the end of 2015, directly reducing the sale levels and profitability of Swiss companies. Then, the anti-graft campaign following Xi Jinping ascension to office in 2012 in China had a strong impact on purchases from Chinese clients of the products of Swiss watchmaking firms both in Hong Kong and abroad. Chinese consumers represented nearly 30% of the luxury market and Hong Kong has been the main export destination of Swiss watches (Bain and Altagamma, 2015). Figures from October 2015 indicate a 39% slump in shipments to Hong Kong on a year-on-year basis, the biggest decline in six years. Thirdly, the emergence of ‘connected’ watches, like the Apple Watch, looms as a threat as consequential as the quartz mechanism in the past century to the established ‘disconnected’ offerings of the Swiss manufacturers. These changes combine to characterize the transition from a disturbed-reactive to a turbulent environment.

A social-ecology strategy approach in the Swiss Watchmaking field

We now assess the presence of the transition, heterogeneity and subjectivity principles in socio-ecological strategy and how a co-competition strategic stance fares in the context of the Swiss Watchmaking Industry. We find some evidence of the CTT transition principle. Turbulence was acute in the historical period following the development by a Swiss consortium of the electronic quartz calibre Beta 21 in the late 1960’s and 1970’s. Electronic watches offered a number of advantages in terms of precision, power reserve capabilities, sensitiveness to jolts and impacts, and cost. The quartz watch soon became a commodity and transformed mechanical watches into a niche category. Consequences were significant for Swiss watchmakers: between 1975 and 1983, their share of the worldwide watch market dropped from 30 to 10 per cent. Swiss watchmakers eventually repositioned mechanical watches as premium products and Swatch integrated quartz in fashionable pieces, enabling the sector to resist and strengthen against Asian watchmakers like Seiko and Casio (Hayek, 2014).

It would appear that the current turbulent conditions will affect low and mid-range watch companies more strongly than high-end companies, particularly independent watchmakers. This we take as providing evidence of the heterogeneity principle. As demonstrated by Hoffmann and Lecamp (2015), HYT and MB&F are two watchmakers that have developed an innovative value constellation (Normann and Ramirez, 1993) resulting in more resilient capabilities. Thirdly, several independent watchmaking companies are particularly constrained in the current configuration, with diminished adaptive capacities to cope, which we interpret as providing evidence of the “subjectivity principle”. Examples include watchmakers Raymond Weil, Victorinox, Montaine and Oris.

As regards to the Ramirez and Selsky (2014) strategic stances, the acquisition of manufacturing companies by the large groups (eg Swatch Group, LVMH) can certainly be read as evidence of the preparation strategic stance. The *Swissness* legislation is an interesting co-competition example where influential actors in the field jointly lobby the Swiss government to change established rules in favor of those within the enclave (McCann and Selsky, 1984), who then can jointly preclude being adversely affected by turbulence because they are better able to meet the stricter regulations; whereas it makes it more turbulent for those external to it. This we take as manifesting the relocating strategic stance.

<i>Strategic Stance</i>	<i>Example in the Swiss Watchmaking Field</i>
Preparation	Acquisition of manufacturing companies by the large groups (e.g. Swatch)
Relocating	<i>Swissness</i> draft legislation
Reinventing collaboration	TAG Heuer Connected Watch developed with Intel and Google

Table II: Strategic Stances in the Swiss Watchmaking Field

Thirdly, the “reinventing collaboration” strategic stance seems particularly relevant regarding the radical innovation that the smartwatch represents. If the meaning of the wristwatch gets reframed as a platform for a connected ecosystem of applications, the field is poised to face a profound existential question. Apple’s smartwatch launch in 2015 was at first observed with intriguing eyes, but its first sales results leave little doubt of the possible magnitude of its impact. In its first fiscal year, it is likely to become the 3rd biggest watchmaker by value, with a projected turnover of more than US\$ 5 billion (Vontobel Equity Research, 2015). Several Swiss companies had decided to act like Slyde, Montblanc, Frédérique Constant, Tissot, or Swatch Zero. These actors created locally connected watches but in a closed platform with only in-house developed applications. This seems of limited interest given consumer analogies with smartphones and their large ecosystem of applications. As of November 2015, the only Swiss actor that decided to break industry conventions and to engage in an innovative collaboration is TAG Heuer, part of LVMH. The company partnered with Intel and Google to co-develop and launch TAG Heuer Connected. It integrated an Intel processor that

connects to the internet and runs applications via Google's Android Wear Platform. The watch is currently manufactured in the United States, not having as such the *Swiss Made* label, and shows only a *Swiss Engineered* sign. The company is announcing the watch at a retail price of US\$ 1500 with a two-year warranty, giving clients an option to pay an extra US\$ 1500 at the end of this period to get a hand-crafted Swiss Made TAG Heuer watch (Le Point Montres, 2015).

In the United States, Fossil, the 4th biggest world watchmaker, has launched the Fossil Q line of smartwatches, collaborating as well with Intel and Google. It hopes it will be the engine of substantial growth in the years to come; and its acquisition of Misfit, a maker of wearable activity trackers, is a sign in this direction (Wired, 2015).

In the meanwhile, Apple, the only player in the smartwatch field to control both the hardware and the software, announced in September 2015 a partnership with Hermès, the French leather goods company, to launch the "Apple Watch Hermès" with Hermès leather straps. Since Hermès also has its own watches line, this is a clear co-competition move where Apple looks to strengthen its "luxury" credentials and Apple to raise awareness with a younger connected clientele, among other benefits.

One can therefore take it that these cases provide empirical evidence that in a "turbulent" context, when the whole common shared ground is in motion, collaborative strategies among dissimilar organisations in a field are advisable. The cases also raise the question of where the locus of value creation in the field is located. Under which conditions can a company seeking to position itself in the changing ground of value creation in the field move its distinctive competences (Teece and Pisano, 1994) from the "hardware" to the "(connected) software"? At which stage of perception of turbulence, firm's value creation locus moves from the industry to the field (e.g. triggers for field-level strategizing initiatives similar to the *Swissness* draft legislation)? Which role culture plays in this shift?

Concluding Comments

We have examined the Swiss watchmaking field to demonstrate that socio-ecological strategy principles and strategic stances have been used to attempt to fare well in the current turbulent context.

This is the first empirical examination of these stances; and the analysis is novel to, and useful for, the watchmaking field.

As the field becomes turbulent, some of our analysis are tentative and incomplete; they are based on partial evidence and fragmented information. This is both a strength and a limitation of this study.

Our analysis also raises interesting research questions. Hoffmann and Lecamp (2015) presented four innovation strategies for independent luxury companies to endure in the current context. They analysed the cases of HYT and MB&F, companies that are developing co-competition strategies at the research and retail levels, respectively. To which extent will these co-competitive modes remain resilient in these turbulent conditions?

Ashby (1968) mentioned that the principle of requisite variety is a necessary condition to deal with complex environments. To which extent does this hold true for the Swiss watchmakers and how can researchers measure it?

Also, Ramirez and Selsky (2014) identify that attending to turbulent environments requires a growing role for futures methods like scenario planning. Ramirez et al. (2015) proposed that scenarios are a suitable methodology to uncover "interesting" insights. Empirical research to further explore the interest of scenarios remains to be done, and the creative industries field may well be a good testing ground to assess this.

A final issue deserving exploration involves the time frames involved in strategizing. For a field that praises timelessness (according to the iconic Patek Philippe slogan, "You never actually own a Patek Philippe. You merely look after it for the next generation"), turbulence appears to be accelerating time. Time has received increased attention in the literature, as exemplified by Kaplan and Orlikowski (2013) and Lord et al. (2015). How might these perspectives apply to the watchmaking industry and the creative industries in turbulence, and in socio-ecological strategy remains to be explored.

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