

The Hotel Yearbook 2023
The Uncertainty New Normal



HYB



**Solving
sustainability
challenges: The
role of digital
technologies and
tech startups**

Carlos Martin-Rios

Associate Professor at EHL Hospitality Business School

Sustainability is slowly becoming a driving force in reshaping the business model and operations of firms. As the aspiration of sustainability implies profound, fundamental transformations of the economy and society, organizations must not just care or aspire to being sustainable but firmly activate sustainable practices for business success.

Compared to the manufacturing industries, the service sector - including tourism, hospitality, foodservice and business services - has been slower in adopting sustainability practices and transforming their core business models and innovation strategies to advance the sustainability transition.

Although it is showing a growing interest in all aspects related to resource management (food, energy, water, land, materials and mobility) there is no clear direction on how to link sustainability decision making into a competitive advantage for a more robust and virtuous industry. Herein lies an important question: How will service businesses harness the transformative power of digital technologies to support the sustainable transformation of the service sector?

ADOPTING SUSTAINABILITY PRACTICES

The transformation of services toward greater sustainability requires three fundamental changes in the way service business is done.

1. Companies need to assess the principles of **sustainable business models** (SBM) and challenges associated with their adoption. SBM are holistic and leverage the social, financial and environmental impact of the business at multiple levels: the company itself, the local, regional and national communities of interest, the industry in which it operates and its competitors, allies, suppliers, and finally, social and institutional stakeholders.

It is promising to see business models that create value for all stakeholders in the value chain without depleting the natural, economic and social capital it relies on. Businesses define their sustainability strategic priorities first, outline their innovation priorities second, and finally, set tangible and realistic performance goals.

2. Larger companies need to establish **ecosystems** to forge long-lasting relationships with fast-changing entrepreneurial firms. It is through collaboration with multiple partners, suppliers, vendors, joint-ventures and embryonic projects that service firms will rebalance the multi-stakeholder nature of the sustainability transition and its implications for the tourism, hospitality and restaurant industry.

A long-term view helps better discern what is important from what is urgent. Such a long-term perspective draws on collaborations with universities and their incubators, small startups, to prototype, to co-create SOI, to look beyond what service meant in the 20th century and embrace what sustainable service will mean in the 21st century.

3. Innovation offers a variety of tools to trigger change.

Sustainability innovations propel systemic changes at strategic, managerial and operational levels. Service firms need to bet on sustainability innovations in their transition toward new business practices. They must have an explicit strategy to make their tech experience match its consumer experience. Today a vibrant ecosystem of tech-based startups helps service companies move their sustainability strategy forward by creating synergies between the next generation of technologies (IoT, AI, advanced robotics, blockchain, 3-D printing) and the next generation of sustainable services.

BLENDING THE STRATEGIC VISION AND AGILITY OF TECH START-UPS WITH THE EXPERTISE OF WELL-ESTABLISHED SERVICES

In its broadest sense, the disruption of customer service is an illustrative example of how collaboration between large services and entrepreneurial ventures might drive innovation around automation and machine learning. Will the next generation of robots be used not only in car assembly lines or pharmaceutical production but also in grocery stores, hotels and restaurants? Imagine a world where routine tasks in kitchens, front-desks, supermarket stores are fully digital and robots and algorithms are capable of delivering personalized experiences.

In this scenario the sector as a whole may replace low skill positions with jobs based on technical and higher intellectual content skills. Professionalization is one of crucial factors that will determine the speed and extent of the sustainable transition. Leading services will propel our societies to a new stage where the social gap between those who enjoy purchasing services and those who provide them is less accentuated.

SUSTAINABILITY IS NOT FOR SOLO PLAYERS

In the short run, tech startups are powerful enablers in the sustainability transition of the service sector. One important lesson from current research and experience is that sustainability is not for solo players. Tech-startups have a significant impact in this new landscape and might play a role in advancing SBM among service organizations.

Tech startups using digital technologies for a sustainable future can contribute to solving the most pressing environmental and social challenges the industry faces. Robots, AI and IoT platforms combine science and engineering to automate many of the tasks in the service sector. We anticipate that in the service landscape of the near future man and machine work hand in hand complementing each other's strengths.

Take the example of startups such as [Kitro](#) that uses AI to [quantify food waste in professional kitchens](#), or [innovative food packaging solution startups](#).

Similarly, established business services working toward digitalization such as Lombard Odier (moving sustainable finance forward by accelerating the flow of private sector investment in building a net-zero world). These companies combine AI, algorithms with machine learning to deliver tailored-made solutions for their clients in the retail, hospitality and foodservice sectors.

Once a business delineates its new business strategy, it can establish partnerships with startups to leverage on synergies. Restaurants may partner with tech startups to adapt their menu to cater to customer preferences based on a sophisticated algorithm. Hotel brands and travel agencies can partner with tech giants like Amazon to suggest unique travel experiences based on past social media activity and purchase behavior. Research on IoT technology in service management is still in its infancy, yet it represents one of the most exciting and promising arenas for novel research and practice, particularly given its innovative and sustainability potential.

Addressing sustainability grand challenges is a one-way street to transforming businesses and society in unprecedented ways. But this requires adopting a long-term perspective that overcomes trade-offs between purpose and profit, and undertakes the need for financial return and social impact. The digital revolution can play a vital role in helping service sector companies to repurpose business for society, profit and the planet.

AT A GLANCE

WHAT IS THE MAIN MESSAGE URGING COMPANIES TO BECOME MORE SUSTAINABLE?

The main message is very clear and simple: 40% of businesses will go under if the 1.5 degree decrease is not met. In short, business models have to change how they function so that production, operations and delivery is optimized to suit sustainable goals. This change in operations requires specific research and insights that cannot be gathered in a solo setting. The service sector has so far made many claims about how it plans to transition to more sustainable working models, but sadly, the reality of this shift is still very much a work in progress. This is why partnerships with tech startups are so vital; to invest the process with fresh ideas based on synergies and digital research. Big hospitality professionals often have little real experience of dealing with sustainable problems, e.g., food waste – an issue that requires specific tech awareness and data analysis to be solved effectively.

WHY HAS THE SERVICE SECTOR FOUND IT SO HARD TO INTEGRATE SUSTAINABILITY?

The service sector - especially the hospitality industry - is by nature constantly tied up with being operational. Little time is available to actually step back and a) rethink how certain jobs could be done and b) harness data and AI to come up with new approaches in line with current challenges (staff shortages) and goals (sustainability). In brief, the whole concept of professionalization needs to be interpreted differently. Take, for example, hospitality staff shortages which today are worse than ever. We all want a service society but no one wants to work in it – which is then further compounded by the fact that we don't mind a machine making our coffee, but we don't want a machine to serve it to us. These attitudes do not add up. The role of tech startups could serve as a great tool for addressing these inconsistencies which are in need of a totally innovative overhaul.

WHAT ADDITIONAL SHIFTS COULD THE HOSPITALITY SECTOR BE MAKING?

There are many mindset shifts that could be made that would help speed the process along:

- Work with competitors to share the solving of common problems.
- Partner with tech startups to develop radical sustainability innovations.
- Invest in research tech innovation (e.g., Google and [Accor](#)).
- Create business models based on local ecosystem partnerships.

Carlos Martin-Rios — Associate Professor at EHL Hospitality Business School

Dr Carlos Martin-Rios specializes in Sustainability, Innovation Management and Leadership. He teaches courses on CSR & Sustainable Innovations, and Organizational Behavior & Leadership. His research focuses on sustainability and innovation management, and addresses how management theories can be applied to tackle grand challenges.

EHL Hospitality Business School — www.ehl.edu

EHL Hospitality Business School (Lausanne) is an ambassador for traditional Swiss hospitality and has been a pioneer in hospitality education since 1893 with over 25,000 alumni worldwide and over 120 nationalities. EHL is the world's first hospitality management school that provides university-level programs at its campuses in Lausanne and Chur-Passugg, as well as online learning solutions. The School is ranked n°1 by QS World University Rankings by subject and CEOWorld Magazine, and its gastronomic restaurant is the world's only educational establishment to hold a Michelin Star.



BirchStreet Pay Solution

Tired of writing checks? Worried about rampant check or credit card fraud? Want someone else to handle all of your supplier payments for you?

BirchStreet Pay is the smarter way to pay.

**Built to simplify
and centralize**

**Elevate compliance
to new heights**

80%+
reduction in
payment costs

\$5,000+
overall savings
from compliance
improvements

40%
reduction in
paper checks

100%
of your payments
handled by
BirchStreet Pay

Email sales@birchstreet.net or visit birchstreetsystems.com