

The power of research in finance to enhance sustainability – Applied to practice

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Many people think of research in the hospitality industry as being difficult to relate to practice. This paper shows not only how theory can be applied to practice, but also how practice is related to theory with regard to concepts such as game theory. During my employment in Munich in the Hilton Hotels Finance Department I was able to experience the aforementioned, which resulted not only in paper savings for the benefit of the environment, but also triggered a paradigm shift among employees.

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Introduction

As the following story on the power of research in finance unfolds, let me tell you that it is based on true experiences and strategic analysis. Final conclusions are based on my own evaluation.

But let me introduce myself. I am originally from Austria, but currently live and work in Tallinn, Estonia. I am Finance Manager at Hilton Tallinn Park in Estonia and in the next few paragraphs I would like to take you on a journey that shows you the power and opportunities that research in finance holds for the benefit of sustainable development in the hotel industry.

As Finance Manager it is my responsibility to ensure that the books are in order, to manage the cash-flow, handle capital investments, make forecasts and budgets, and do the reporting, analysing and controlling. In other words, I am involved in basically every aspect of the commercial business, as at some point it all translates to financials.

Before coming to Tallinn I used to work in the Hilton Hotels Finance Department in Munich. Within two years we went from a two-slide presentation about paper consumption in one hotel, to implementing paperless meetings in two hotels, to applied research for a paperless office in Northern and Central Europe. On our journey to sustainable management, among others, we took research on the positive impact of plants in office environments seriously; we had the cleanest office floors, free from paperclips, knowing that the monetary value of 48 paperclips equals one meal for a hungry child, and we turned our lights and computer screens off during lunch breaks. All this we achieved in less than two years. So, how did we manage to do all that in this short period of time?

In the next lines I will focus on my role in the story and how my colleagues responded to my efforts to promote a more sustainable attitude.

When I started in Munich, one of the first things that I noticed was that there was a lot of potential to perform in an environmentally responsible way. The only question was, how to activate this potential – how to bring this potential to life?

To explain how I approached this question, I would like to borrow the Nash equilibrium from the mathematical concept game theory developed by Nobel prizewinner John Nash (The Economist, 2015). Some of you may know him from the movie “A beautiful mind” with Russell Crowe. I looked at the Nash equilibrium because it exactly described the situation where I found myself from a strategic point of view. In very simple terms, all I needed to do was to swap the existing negative Nash equilibrium with a positive one, where environmentally responsible thinking was a strictly dominant strategy; in other words, everybody involved should always go with the strategy to act, perform and think environmentally responsibly.

So what is the Nash equilibrium? I won't tease you with any mathematical equations. The Nash equilibrium can be easily described as a situation, where neither party or player is attracted to changing the strategy by him or herself (Diekmann, 2009). In other words, two players have both chosen their best strategy and none of them has the desire to change it as long as the other player doesn't change his or her own strategy. The negative Nash equilibrium we found ourselves in was that basically no one invested in environmentally responsible projects. Investment means time and energy. The equation goes: no investment means no reward like a prize or special attention from the managers for such a project. The players or team members currently chose “no investment and no reward, and I am fine with it”. This meant that also none of their fellow team members felt inspired or at least obligated to change their strategy. So all I had to do was to create an environment where at least one team member would start with some act of sustainability. This team member would get a reward like a prize or special attention from the managers; and now, the other team members had to change their strategy as well to be in the same spotlight, to reach the same level and have the same standing in the hotel. As such we would have a Nash equilibrium that makes us more successful in becoming and being environmentally responsible.

Now I just had to find a tool that allowed me to make this

shift happen. I knew that we consumed a lot of paper, so the next thing I did was to ask a team member from Accounting to get all the figures ready for a small presentation on the office's paper consumption to our colleagues. Having a team member working on this project was the first step in getting the word out there. The research suggested that we consumed about 1.5 million sheets of paper a year. This is a huge number, and it is difficult to imagine. So we looked for something everybody could easily relate to, which would make our message more powerful – and we found it – in Christmas trees. I admit that coming up with Christmas trees was no coincidence. We were in the pre-Christmas season at that time and from a psychological and emotional point of view it was a lot easier to get the message to the people with Christmas trees instead of the amount of paper sheets used. Anyway, research told us the approximate weight, length and all the data we needed to calculate the amount of paper that went into one tree. We calculated that to keep our operations running we needed about 463 trees a year for our hotel, or more than one tree each day. We presented this result to the team and, finally, this created the awareness we needed to continue with the journey, which after a few months resulted in the first digital morning meetings with the management team.

From now on, everybody in the hotel knew that I was, so to say, the "paper guy".

When at the start of one of those first digital meetings a colleague apologised to me for bringing paper to the table, I started to realise that the course we were taking was right, but needed a lot more time. What seemed to be a decent reaction at first, indeed meant that my colleague was being environmentally responsible only because I wanted it ... but what if I left the hotel, or what if she left the hotel? Even when working for another company I would have liked her to transfer this knowledge.

Something similar happened a few months later, yet with a different colleague. In fact, this event was positive, because it showed that we had progressed in our journey and now were encountering an obstacle, which was different, on a higher level than the previous one. This colleague was presenting to me very proudly a new idea that he was about to implement in terms of environmental sustainability. This approach from my colleague made me proud but this time it showed me that people were now doing it for the sake of outside rewards, in this case in the form of congratulations from me. Instead, I wanted people to act sustainably for its own purpose, for the sake of environmental responsibility. The most sustainable form comes from the inside out – intrinsic motivation is the key to have all this working (Cavagnaro & Curiel, 2012).

Almost at the very end of my time in Munich, I talked with colleagues of mine and I mentioned that sustainability

is a context. They corrected me, saying it is an attitude and we need to change the mindset. With this I agree, but only partially, for a simple reason. If you need to change the mindset, you have two options: one is to change the mindset of every single person individually, which can be hard. To exemplify: imagine that you want to change the mindset of a three-year-old who wants to have a chocolate, without promising him to have that chocolate later on or wishing him to ask you for it later on. You can tell him that he cannot have this chocolate, and yet he will want it. The problem here is that our brain cannot digest negations: we need first to think about what we are not supposed to do, before we are able not to do it. If I told you now, not to think of a pink elephant, I am pretty sure that you would just picture a pink elephant in your mind – which you shouldn't do (Nongard & Hazlerig, 2014). This is exactly the trouble with changing a mindset: just telling people that something is a good thing, or that they should not do certain things will not be enough.

In some instances it might be better to change the context that people move in. In the chocolate example, this would mean not letting the child see any kind of chocolate at home, so that he will be less likely to be tempted to have one. In a realistic scenario, the context will kick-start and support the change of the mindset. This is exactly what we did in Munich. We even didn't force the change of the context by the managers; instead we had our team members trigger the change themselves, by simply applying a reward system knowing about the principle of the Nash equilibrium.

As a matter of fact, game theory offers many examples of how changing a context works in our daily lives, such as the red-light system in traffic or why it is sometimes better not to build an extra street to make the traffic flow paradoxically more fluid (Diekmann, 2009).

What is there left to say? All these actions and reflections came with the journey of one project in Finance. You can see that the power of research in Finance to nudge sustainable behaviour is tremendous: the things you find out, the actions it might lead you to and the successes you may celebrate. You just have to open up for research, don't limit yourself on research and keep the original focus.

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