

# Digital transformation in a car-rental company: A case study

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May 12, 2020

## Abstract

Competition is grim. Means of differentiation from the competition is imperative and innovation is key. Many resort to digital transformation investments, yet few truly succeed to reap most of its benefits, misusing a substantial part of the investment. This research aims to examine a successful digital transformation solution in the car-rental business, **Key'n Go** using a case study as the research method, in order to understand what were the steps taken to achieve its huge success. This research used an acknowledged often used for IS/IT projects, approach named benefits management, since it provides a wider view of the project, which supports a rational decision on its investments and alignment with the company's objectives.

**Keywords:** Case study, Digital Transformation, Benefits Management, Information Systems, Car-Rental.

## 1. Introduction

Alongside digital transformation (DT), information systems (IS) and information technology (IT) have been in the past recent years one of the core strategies into uplifting an organization performance via innovation [19], however as pressure from an everlasting increase in competition and organizational objectives increasing their measures of success, nowadays the common metrics around success are based on the budget of the project, delivery period, quality and uniqueness [6, 17]. Nevertheless long and gone are the days where IS/IT investments had an obvious and assured financial return [18].

In success or failure around those metrics, **around 75% fail to deliver the benefits which were aimed for** [20], resulting in mislaying large amounts of money [4]. *The lack of understanding on how to identify and manage benefits in conjunction with inertia to DT* has led companies into troubled waters, possibly even causing bankruptcy, all due to disruption caused by competitors fully embracing DT as their innovative business model.

There are usually two main examples of once market leaders who found themselves floundering due to digital inertia, Hess et al. define as the *“inability to rapidly develop and implement new digitally-based business models”* [7] can be found in the cases of *Kodak*[10] & *Blockbuster*[1]. Nowadays it is key to assess the IS/IT investment being made and fully grasp if the benefits that are prevailing from the investments are realized. If managed correctly DT projects likewise IS/IT projects, their benefits can be achieved [16], highly increasing the chance of success. Benefits management (BM) as being the approach chosen to try to maximize and attain the foreseen benefits in DT projects.

Citing Peppard [11], *“Quite simply, adding technology does not automatically confer expected benefits; these benefits have to be unlocked and this can only happen through achieving organizational changes. Consequently, it is useful to think about investments in digital as essentially investments in change”*. Ward & Daniel [19] which defined also BM as *“the process of organizing and managing such that potential benefits arising from the use of IT are actually realized”*, pioneered the most cited model for BM, the Cranfield Benefits Management.

## 2. Benefits Management

Making its debut during 90's [3] from the need to justify IS/IT investments, which traditional financial appraisal methodologies were not achieving satisfactory results [21], on numerous occasions, the expected benefits did not manage to happen even though the project is delivered in the intended time-frame, on budget and respecting the usual technicalities [12].

Ward et al [21] emphasizes that **BM main focus is the effective management from tangible and intangible values originated from IS/IT investments** and that unless a benefit can be observable, it should not exist. The benefits can be classified into four types as seen in Table 1

Table 1. Benefit Types

Benefit Type	Description
Observable	The stakeholders need to reach an agreement if the benefit was / was not accomplished
Financial	When a value is calculated from a cost/price or formula
Quantifiable	When there exists enough proof to estimate how much improvement / benefit the changes originate
Measurable	When the benefit can be measured but is not enough to forecast how much improvement is generated

Like any other scientific approach, BM have different approaches to its application as they diversify between them by their own characteristics. Since the scope for this case study (CS), was limited by time and space, for this case study we will be following The Cranfield School Model by Ward & Daniel [19] as it is more IS/IT investment-oriented, where the key part of the model is to keep track of the benefits.

## 3. Organization - InterRent

*Europcar is one of the main actual players in the car-rental industry*, only in 2018 having a revenue of 2.929 billion euros [5] and being in over 140 countries, its **behemoth status can be a hurdle for innovation** has it comes with little to no flexibility for change in an agile way, all changes taken take way too much time to globally be implemented. As we pointed out before during this paper **innovation inertia can be the biggest threat to any organization** and one of the common mistakes that peril the greatest organizations in the market.

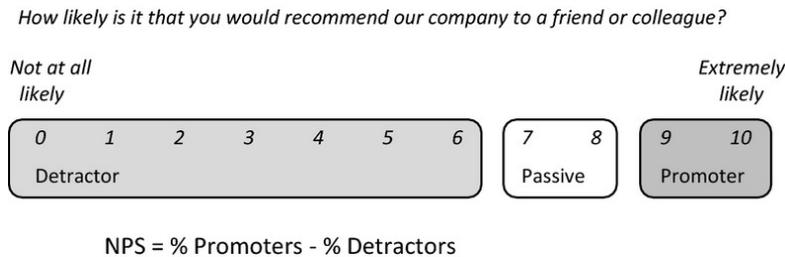
*InterRent as a mid-tier at the Europcar's group*, being rather smaller yields much-desired advantages Europcar lacks, providing the necessary agility and flexibility to implement in a swiftly fashion innovative solutions. Making InterRent the best pilot for testing innovative solutions that if proven to be successful, will be implemented in Europcar, consequently, the creation of Key'n Go.

### 3.1. Key'n Go

The average consumer chooses a service based on what is grasped as the option with better "value for money" as it is, in fact, the most logical approach in the options presented to them. Brokers are the ones responsible for the suggestions presented, turning them into one of the most important bridges between a brand and the consumer. Brokers consider their options by comparing the brand's net promoter score (NPS) amongst its competition if a brand has higher NPS it goes up in the suggestion if it has lower NPS it goes lower or does not even show as an option.

NPS is a word of mouth metric, introduced by Reichheld in 2003 [14]. Reichheld says "it is the best predictor of growth" [15] and that it is "the one number you need to grow" [14]. When comparing the survey questions, the strongest correlation between repeated purchases and referrals was "How likely is it that you would recommend [company X] to a friend or colleague?" [14].

Making the ultimate goal to achieve the highest score possible from a scale of -100 to 100.



**Fig. 1.** Net Promoter Score, figure from Krol et al. [9]

One of the most important factors to get exposure for consumers is the NPS and NPS mainly comes from differentiation factors against the competition. Allen & Helms [2], suggested that “*For the differentiation strategy, innovation seems to be the most critical factor for success*” nothing spells innovation like Key’n Go.

This digital transformation solution (DTS) is essentially a hassle-free/seamless experience, has its goals set on stopping the main pain points that were discovered on the CJ which were negatively impacting the NPS score, the pain points used to be:

**Table 2.** Customer Journey pain points

Pain Point
The extremely long queue in order to be served by the car-rental desk
Being annoyed by an employee trying to sell extras and repeating the process regarding insurance again
The need to check for inventory damage before being able to pick the car
At the checkout when returning the car, having to check for damaged inventory and waiting more time before delivering the vehicle

Key’n Go surpasses the identified pain points by getting rid of excessive queue times utilizing kiosks which are assisted with a ground-hostess, making it possible to deliver the car in a shifty minute while also as a sweetener giving the customer the power to choose a car he wishes from the fleet accessible.

Considering the last-mentioned solution, Key’n Go bundles all the extras this protects the customer so has to not be pressured in acquiring further extras by an employee and as the customer did already pay for a premium, nothing could be easier for the customer as dropping off the vehicle, just delivers the keys in the concerted place and go his way.

During all this process the customer is impacted by the **Wow-factor**, which in marketing means that the customer “*relates to exceptional customer service in which an employee gives the customer more than he expected or something he did not expect at all*”, as it overtakes the customer’s expectation for the service, the customer feels very happy and turns into an ambassador for the brand, publicizing the service via word-of-mouth, increasing the NPS, resulting in a positive cycle that boosts sales.

A standard NPS level in the car-rental Industry, for Premium Companies is 52 – Key’n Go, albeit being a Mid-Tier brand, not a premium, reaches an average 54 with peaks over 60 during high season (comparison effect).

#### 4. Case study

A CS slightly differs in definitions according to the authors backgrounds and points of view.

Following the definition by Yin it consists of “*an empirical inquiry that investigates a contemporary phenomenon within its real-life context, addressing especially situations where the boundaries between phenomenon and context are not clearly evident*”[22].

#### 4.1. Design & Research Question

Ideally DT projects as a core part of organizations strategy investments would carry a near-perfect success rate. Yet their success rate is extremely low, this directly impacts economically the organization as it will make a dent in their ROI [20][4].

This paper aims to tackle this enduring problem by aiming to identify using BM what steps need to be done to achieve a higher percentage of success in DT projects.

In order to do so a question arises:

- Why was Key'n Go a successful digital transformation solution?

This case covers mainly the situation after Key'n Go was live and during the process of it, trying to understand the transformation of this DT solution and its impact on the InterRent results, which were interpreted from the analysis of the context.

The CS has the following characteristics:

**Table 3.** Case study characteristics

Characteristics	Description
<b>Descriptive &amp; Exploratory</b>	Showcases the phenomena and tries to discover what does happen while seeking new understandings and generating new ideas for future research
<b>Interpretative</b>	Fully comprehend the phenomena using the project participant's (interviewees) point of view based on their context, alike exploratory and descriptive type
<b>Qualitative</b>	Provides an improved perspective on the phenomenon when analysing it
<b>Flexible</b>	The essential parameters of the study are able to change during the course of the study
<b>Triangulation of Data</b>	Multiple data sources were used such as document analysis and interviews
<b>Holistic</b>	Has a single unit of analysis in the form of the digital transformation solution

#### 5. Data collection & analysis

Following Ward & Daniel [19] literature, the BM process is composed by five different stages, the first three stages aim to identify and structure, plan and execute the benefits, the last two stages are focus on reviewing what was done and evaluate the results in other to obtain identify from lessons learnt potential future benefits.

##### 5.1. Benefits management process

A business driver is what the management understands as the core for the business, bounded on a time-frame where transformation in the business needs to happen. Drivers can be internal or external based on the fact, if they come from internal factors such as improve a process performance or external factors such as achieve higher customer satisfaction.

Having the drivers, we can define the investment objectives. The following tables demonstrate the the respective business drivers and investments and the linkage between them.

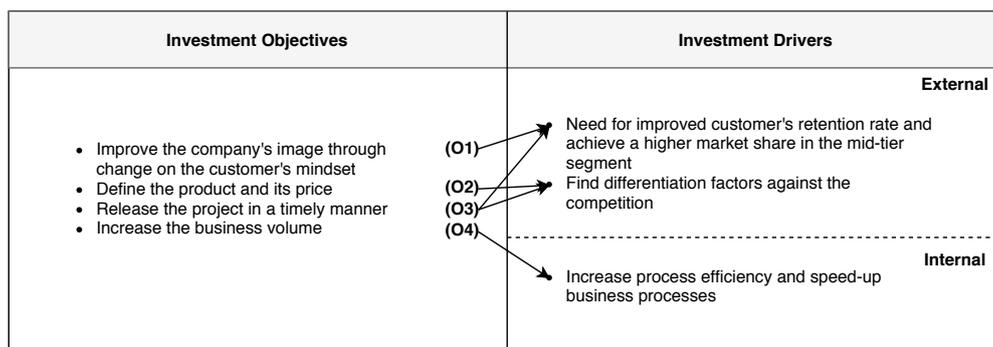
**Table 4.** Drivers of Key'n Go

Investment Drivers	Type	Justification
Need for improved client retention rate and a higher market share in the mid-tier segment	<b>External</b>	Customer retention is key on any business and InterRent had a subpar performance on this stage ending in a negative NPS
Find differentiation factors against the competition	<b>External</b>	Car-rental became a commodity, the urgency to find a way to differentiate from the competition as the key to success
Increase process efficiency and speed-up business processes	<b>Internal</b>	InterRent managed to pinpoint on their customer journey four major pain points the customer faced while renting a car

From the business drivers previously identified, the next step should be to define the investment objectives derived from them, these objectives directly reflect the end goal of the project. All the investment objectives should at least be linked to one business driver, this connection makes it possible to demonstrate how the investment directly impacts the business strategy.

**Table 5.** Investment Objectives of Key'n Go

Investment Objectives	Code	Justification
Improve the company's image through change on the client's mindset	<b>O1</b>	Causing the Wow-factor with the service thus boosting the NPS level, snowballing positively on the volume of sales
Define the product and its price	<b>O2</b>	In the attempt of leaving the low-tier market sector due to very low-profit margins practice, rebranding themselves in the mid-tier sector via innovation on their services
Release the project in a timely manner	<b>O3</b>	The first-mover advantage is one of the main success factors, as it gets a competitive edge by being the first on the market. It enables the to set up a solid customer loyalty and brand recognition
Increase the business volume	<b>O4</b>	Key'n Go inverted orthodoxies on InterRent's business model, this is a direct consequence of the necessity of diversification on their now new business model.



**Fig. 2.** Drivers and investment objectives linkage

**Table 6.** Identification and structure of the benefits from Key'n Go

Benefit	Code	Type	Metric	Owner
Increase customer's satisfaction level	<b>B1</b>	Quantifiable	NPS	Customer Service Department
Increase the volume of sales and their respective margins by increasing the basket value	<b>B2</b>	Financial	RPD, Top-Line	Commercial Department
Achieve higher performance on the processes	<b>B3</b>	Observable	Avg time fulfilling customer's order	Operations Department
Conquer market leaders	<b>B4</b>	Measurable	Market Share	Sales Department

- **B1:** Word-of-mouth factor and a happy customer is the best marketing campaign, generating a positive snowball effect of publicity and boosting sales
- **B2:** Increasing the volume of sales and their margins by increasing the basket value and reducing costs while doing so, is the perfect scenario for any company investment
- **B3:** Key'n Go simplifies and speeds-up the process of the car-rental booking, culminating in more sales and thus more profit, while also by simplifying everything on the customer's end by providing a better customer experience, boosting their level of happiness while purchasing the service
- **B4:** Showcasing a clear case of competitive advantage via innovation, fetching a bigger slice of the car-rental market mid-tier segment

## 5.2. Benefits dependency network

A BDN “provides the framework for explicitly linking the overall investment objectives and required benefits with the business changes necessary to deliver those benefits and the essential IT capabilities that enable these changes” according to Peppard et al.[13]. Being a problem-based type of investment or an “ends-driven” [19], its main goal is to “identify the most cost-effective and lowest risk combination of IT and business changes that will achieve the required improvements, most of which can be expressed as explicit, quantified benefits”[19].

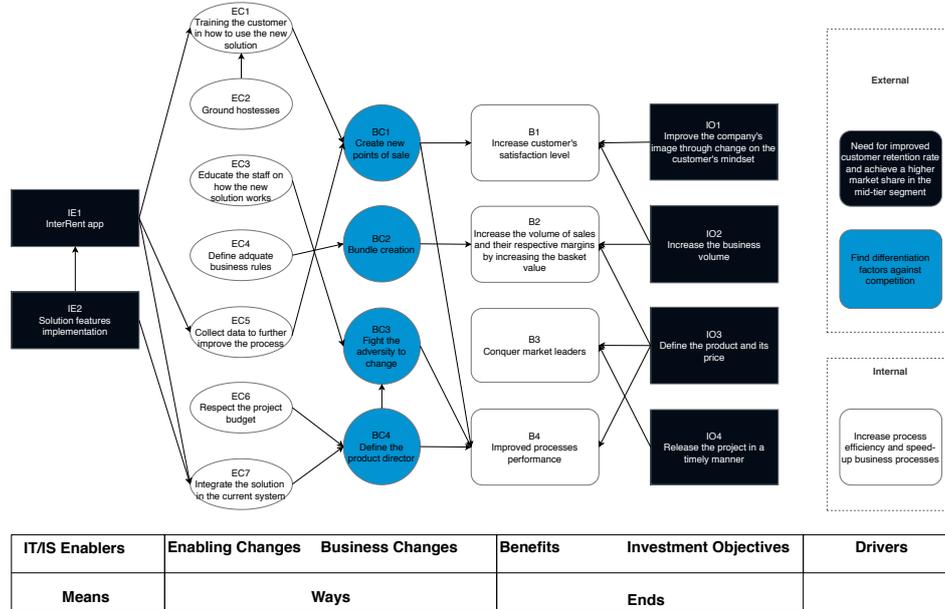


Fig. 3. Key'n Go BDN

## 6. Reviewing & Evaluating the Results

Taking into consideration the data collected from the different interviews we can achieve the following conclusions, starting with the positive aspects of the Key'n Go project.

### 6.1. What went well

Starting with **the company** itself, different work-streams were set and the **different departments as a unit worked together with a clear objective**. The **Key stakeholders were involved from the start**, their guidance and support proved to be essential for every step to run smoothly, another key aspect was the fact they run **permanent reviews on deliverables and the goals** that were achieved.

In terms of **teamwork & communication**, as previously said, there were distinct work-streams and everyone worked together with clear objectives, including external communication other projects and suppliers, also the key stakeholders showing interest and always being accessible for any doubt or decisions to be taken. The **communication was centralized and continuously shared with the different teams involved** and colleagues in the offices, that worked on the Key'n Go service, there were constant update when new releases happened, improvements, changes etc. On the Key'n Go **project start-up**, the **objectives and the benefits were set for the first pilot** of Key'n Go and for the following release, the objectives were implemented in a continuous improvement mode.

As any project **planning & tracking** is essential, at the beginning of the project it was established a project manager, who then followed the best practices of PM such as PMP, PRINCE2

and Agile methodology, including activities of the whole areas. Any risk change or risk that was identified, was very quickly informed to the sponsor in order to be accepted or not, prior to going forward with the project. Thanks to **recurrent internal project meetings** (follow-ups), dependencies were found and rightly dealt with. In the **development process**, thanks to proper management, **all the steps in the development process were followed accordingly**, there was **multiple points of control** (milestones) in order to check the results, at the end of the year, the objectives early defined were reviewed and controlled to verify if they were still **following the SMART ideology** and the benefits were very clear, everything had a process behind in order to guarantee that the different teams were getting closer to each goal at every step taken in the most efficiently way possible.

In the **quality process** phase, the manufacturing of the machines (kiosk) was controlled in terms of the quality process, the **SW releases** and IT developments were in a systematical fashion **tested prior to production** by the execution of multiple test plans. The **implementation**, the **manufacturing of the kiosks and the SW was clear in all the different stages of the process**, everything went smoothly from the infrastructure and IT side. The external support was a big key to success, especially on the SW development, but overall all the **external support of different certified companies did great. Documentation & training**, overall worked perfectly, the documents were produced, sent and updated as needed, all done by the training team. The **training team always managed to solve the problems** that were faced in a swift fashion.

Finally the most important part, **the people. Team spirit was rated a solid 10**, a true key for success as *DT is not all about the technology but the people around it*, the true challenge to be faced is always the company culture, how to modify the people's mindsets and the way people think and do things coupled with having the right knowledge and skills is one short step to achieve success.

## 6.2. What could have been done better

In **the company**, some roles and **main tasks required some continuity but sometimes it has proven to be difficult to guarantee it**, for reasons non-related to the project. **Focusing on the sales agents**, this new DTS brought an evident issue to them, the end of commissions, this showed to be a **difficult step to overtake on changing the mindset** of the sales agents as they lost an extra personal revenue. **Once the project was in "Business as Usual" mode** in other words after the pilots were done and the stabilization period, the **participation was reduced and the objectives were not always the same for the different departments** involved, this can negatively impact the pace of the work to be done and the final results.

In terms of **teamwork & communication, different channels were used and even sometimes information was shared informally**, for instance, a unique channel could have been used to share the information, as it **resulted in information not reaching everyone necessary**, the problems not being swiftly dealt with and resulting in a problem hoard. In the **project start-up, there was no Business Case**, as a business case forecasts the costs, benefits and risks of the project, it is essential for the key decision-makers to decide what approaches to choose from or even if the project is worthwhile. The **terms of reference were modified a lot**, especially the language of sale. The terms are always being updated and there is a current need to find a place and own language in order to be clear and everyone from the sales agent to the customer to understand on their own.

During the **planning & tracking** of the project, **there were changes in requirements once the scope was set**, this negatively impacts the planning and the final results, the handover between different people due to some leaving the project, could have been more undoubtedly done. The **development process** faced **bottle-necks** in some parts of the process all **due to lack of resources or priorities changing**, sometimes internal issues took way to much time to be solved.

The **quality process could have been more dependent on the company's staff**, it is better to count on internal resources as their knowledge remains inside of the company and in case of need, it is always faster to start new test plans and finish them instead of always relying on other sources, since time is of the essence. The **implementation** faced some problems of communication, **some communication could have been handle better to update the news release in order to inform the company**, not always it was possible to get the ideal kiosk location as the airport could raise issues. During implementation, **some HW stock-outs did happen** (electronic components for example), this needs to be taken into account to avoid possible delays.

**Documentation & training** faced also communication problems, **there is a current need to find a proper way to communicate and keep updates as different methods and platforms can make it more difficult and less efficient**, the training is too much centralized even though the worked very well, since the training personnel was scarce, if one trainer is on vacation or has any problem, everything stops, **there is a need to have more trainers**.

### 6.3. Recommendations

Following the researchers, personal opinion coupled with the interviewees insight, the following recommendations are given in order to improve next future similar DTS projects, that face similar hurdles.

Facing **the company**, a kick-off project is always necessary in order to agree on the scope of the project and people from each department responsible for each task. It is positive to involve everyone necessary as the feel of participation as a team for a cause, is vastly superior as just solving the tasks needed, for example, a higher rank CEO pushing, can improve the dedication from everyone involved, aligning with the importance of the project. Since during the project, it felt difficult to guarantee some roles and new people continuously entering the project as other leave and one of the biggest problem was communication, finding ways to integrate the new people on the teams is essential.

In terms of **teamwork & communication**, there may be a need to carry out more frequent follow-up meetings in order to share the advances (and possible deviations) with the team. It is important to know what pain points might appear and to try to solve them together, avoiding them escalating out of control. Since communication faced some problems on to define who can do what or who can help who, an implementation of a more agile methodology such as Scrum, so everyone knows the issues and who is solving them, so it does not escalate and the inclusion of all the parties involved in the project is achieved with success.

On the **project start-up**, creating and establish the communication channels and frequency at the project start-up phase. Who needs to be informed and how and when is essential. Also, defining thresholds by providing more power to individuals, so one can take decisions within that margin, without the current need to escalate to a superior, making the process run smoothly and faster by freeing the higher ranks for more important decisions. During **planning & tracking**, a lot of changes were done once the scope was set, it is very important to stick to the requirements and do not change them constantly, this negatively impacts the work of the different teams (review with sponsors/ product owners help to avoid it).

On the **development process**, setting priorities on everyone involved seems essential, this way everyone knows the importance of their responsibility at each step and how they help to achieve the common goal/objective. At the **quality process** scheduling, different Demos for main stakeholders is very important. This is the best way to validate the requirements and changes in production are easily avoided during this early phase.

On **implementation** it was noticed multiple HW stock-outs, it is recommended to ask in a preventative way the partners in order to provide different options to avoid these HW stock-outs or lack of key resources.

At **documentation & training** even though the training team did wonders, they were few

and if for some reason there was a vacation schedule or another issue, everything stopped. The creation of a training and communication channel, that centralizes all the doubts and has all the answers in the same place is very important, this coupled with at least one person responsible in each country where InterRent will deploy this DTS will solve any problems for training. On the customer perspective, creating a more in-depth tutorials, such as videos or written guides, on the InterRent app and site, on how to use the DTS will greatly improve the customer training process and accelerating the learning curve, letting a smoother transition for future similar projects.

Lastly, **the people**, as noticed on this review, the people involved on the project are the true key of its success, finding ways to keep everyone motivated and focused on the big picture is what will turn any DT project on a successful DT project, because even though being the first opens a world of possibilities in front of you, and you can work in the fine tuning of your first prototype before the competition, the real heroes are still the people around it, thank your team, they are the true driver of success.

## 7. Conclusions

BM is a well structured methodology which provides a holistic overview of a project, it provides an easy identification and realization of the planned benefits, while making sure to identify the actions needed and decisions to be made in order to reach success. BM is a complementary methodology, it was not created to substitute other PM methodologies. Quality as a source of differentiation, InterRent managed to transform a traditional business into a digital business, by prioritizing the customer needs and reacting accordingly.

From a **DT perspective**, the BM methodology allowed us to identify multiple success factors. The main success factor and the basis for its success was its **leadership**. Leadership is crucial when changes are needed, the correct mindset must come from the higher ranks. The Key'n Go project benefited from an outstanding leadership scenario, the key stakeholders were involved from the very start with a crystal clear purpose on the benefits this project would generate for InterRent. With the project director being able to rally every department to work as unit on the same goal coupled with its forward thinking, constantly pushing for new opportunities and being able to stay always interested and accessible for the project needs.

A powerful leadership is most effective if the **strategy is placed prior to the technology itself**. Key'n Go is based on the pain points and experience of its customers. InterRent by starting from the end and **re-imagining their CJ**, managed to invert orthodoxies and achieve the technological and cultural changes required to support their DT. The third success factor is its **agility**. DT runs at a very fast pace, in order to achieve success being agile and flexible is a must. Key'n Go from its start to finish, always used an agile methodology, it made sure everyone was on track and informed on the current goals by making use of multiple points of control, it showed to be flexible to issues that appeared as the objectives and benefits were constantly reviewed in order to accomplish them in the most efficient way possible.

Lastly but not least, **the people**. As referenced before DT is not all about the technology but the people around it. People empowerment is key, team spirit was rated as high as it could be, everyone managed to work as a unit, the sense of ownership pushes even forward the results as engaging employees directly compliments the strong basis of success, the leadership.

## 8. Limitations and Future work

For limitation, the interviewees were not familiarized with the theme of BM, although comprehensible it was necessary to provide explanations of the concepts and to resort to practical examples. By being seeded abroad, some interviews had to be done using virtual means, which enhances the previous limitation. The CS is based on a *à posteriori* perspective, not being able to provide a active benefit management with the purpose for them to be realized.

For future work, even though investment objectives have been fully achieved, it does still leave space for future developments and improvements on the process, being very interesting to follow-up on the new consumer behaviour caused by the present pandemic, and what is the impact of contactless services on the consumer choices.

## References

1. Albarran, A., Media management and economics research in a transmedia environment, *Communication Research and Practice*, (2016)
2. Allen, S., & Helms M., Linking strategic practices and organizational performance to Porter's generic strategies, Emerald Group Publishing Limited, (2006)
3. Breese, R., Benefits realisation management: Panacea or false dawn?, *International Journal of Project Management*, (2012)
4. Dhillon, G., Gaining benefits from IS/IT implementation: Interpretations from case studies, in: *International Journal of Information Management*, (2005)
5. Europcar Mobility Group S.A. - Consolidated financial statements for the year ended 31 December 2018, [Online]. Available: <https://investors.europcar-group.com/static-files/c647ae8a-9633-4362-8a06-557c17de9eaf>
6. Farbey, B., Land, F. W., & Targett, D. How to assess your IT investment: A study of methods and practice, Oxford: Boston, (1993)
7. Hess, T & M., Christian & Benlian, A. & W., Florian, Options for Formulating a Digital Transformation Strategy, *MIS Quarterly Executive*, (2016)
8. Klein, H., & Myers, M., A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems, *MIS Quarterly*, (1999)
9. Krol, M. & de boer, D. & Delnoij, D. & Rademakers, J., The Net Promoter Score - an asset to patient experience surveys?. *Health expectations : an international journal of public participation in health care and health policy*, (2014)
10. Lucas, H. & Goh, J., Disruptive technology: How Kodak missed the digital photography revolution. *The Journal of Strategic Information Systems*, (2009)
11. Peppard, J., A tool to map your next digital initiative, *Harvard Business Review Digital Articles*, (2016)
12. Peppard, J. & Ward, J., Unlocking Sustained Business Value from IT Investments, *California management review*, (2005)
13. Peppard, J., & Ward, J., & Daniel, E., Managing the realization of business benefits from IT investments, *MIS Quarterly Executive*, (2007)
14. Reichheld, F., The One Number You Need to Grow, *Harvard Business Review*, (2003)
15. Reichheld, F., *The Ultimate Question*, Harvard Business Review Press, (2006)
16. Remenyi, D. & Sherwood-Smith, M., Business benefits from information systems through an active benefit realization programme, *International Journal of Project Management*, (1998)
17. Renkema, T. J. W., *The IT value quest: How to capture the business value of IT-based infrastructure*, Chichester: John Wiley & Sons, (2000)
18. Serrano, A., Maciel, M., *Gestão de Investimentos em Sistemas e Tecnologias de Informação - uma revisão crítica*, *Sistemas de Informação*, (2001)
19. Ward, J., Daniel, E., *Benefits Management: Delivering Value from IS & IT Investments*, Wiley, (2008)
20. Ward, J. & Hertogh, S. & Viaene, S., *Managing Benefits from IS/IT Investments: An Empirical Investigation into Current Practice*, (2007)
21. Ward, J. & Taylor, P. & Bond, P., Evaluation and realisation of IS/IT benefits: An empirical study of current practice, *European Journal of Information Systems*, (1996)
22. Yin, Robert K., *Case study research: Design and methods*, Thousand Oaks, CA (1994)