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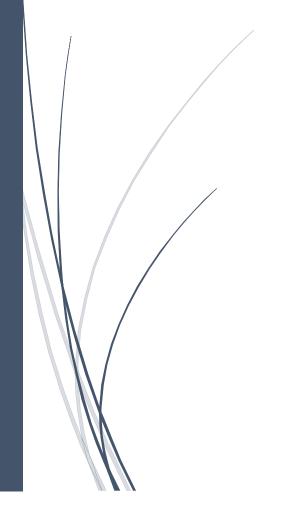
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11/30/2022

Data analysis applied in a touristic environment in a Global Touristic Group in its local Division

Applied Project II



Sandra Lorena Coronado

ABSTRACT

This study emerged from the need of improving sales in a touristic company in Dublin. Because of the experience working at place, some ideas came up to boost sales. One of them being deeper, because of the investment that it represented.

The challenge was to demonstrate that structured focused training based on psychographic could have been the answer to increase the sales. There was a project with one of the members of the team, which goal was to become a better seller, which was achieved at certain time.

However, the factors involved, and the procedure followed to make it happen was unclear, and there was an indicative the answer might had relied on simply training. But an adequate one for this member.

If true, there was a chance to achieve the goals on a simple way, so that, an opportunity can be given to basic actions driven by new technologies to become more efficient.

In the next pages there is a deep explanation of what has been studied, how was the idea created and how valuable this procedure can be.

List of Acronyms

• CSR's Customer Service Representatives

• OTA's Online Travel Agents

• IT Information Technologies

• QR Code Quick Response Code

• Ventrata Platform for booking on tours or attractions businesses

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1. Chapter one: Introduction

1.1. Introduction

Touristic industry will be the area of interest as researcher have been working for a global touristic company for the last three years. And who have witnessed the evolution of the business both, locally and globally and how it overcome after lockdown period.

Tourism is a large industry around the world. Specially in the past, it was limited for wealthy people as transportation, accommodation, and gourmet cuisine among others, were exclusive services because of its high prices.

As a result of globalisation and the incursion of low-cost carriers in the market, information has been spread around the globe in a record time, and access to transportation has become affordable for more than only high social cluster.

At the beginning, working on this industry, this job, was only a way to pay bills, but through time, knowledge, and experience, a passion for customer service has been found.

The field of specialization of the researcher is IT and, who currently work with finance and sales supervision, The objective is to prove the relevance and use of data analysis on sellers psychographic to improve sales, with training.

1.2. Rationale for the study

Data Driven is the new way of making decisions in every business in any market. However, the level of knowledge, analysis, and use, vary among industries, regions, business sizes, etc.

But not only that, the way of collecting and applying data analysis has a considerable range of options, as large as it could be infinite.

Technology evolves immensely year by year which enlarge data analysis possibilities.

As mentioned above, the intention is to increase the sales of the company. To do it, this project will find out a link between the sellers' profile, their type of personality, their selling approach, their type of job, among others. To access this information, data analysis will be used.

1.3. Statement of the research objectives

The objective of this research is to understand data analysis applied on the psychographic element of sellers in a touristic company in Dublin. The goal is to determine a direct relation between data analysis and the psychographic element to define the appropriate training approach to boost sales.

But as complex as it sounds, it involves the understanding of some key elements, to get an answer to the main question, such as data, data mining as source of information, psychographic element of sellers, sales enablement, and tourism. The understanding of these factors as a system will lead to an answer to the main question.

The context around the main question, present the need of developing more specific questions, that should be analysed since the unique perspective of this division. These questions are listed below,

- Theme one: What are the limitations presented on data analysis when it comes to GDPR regulations?
- Theme two: How to use data mining to analyse the seller (profile, performance, behaviour?
- Theme three: How to apply psychographic to influence seller performance?
- Theme four: How is personalisation of training tool being used here? Has it ever been applied?
- Theme five: What tourists are looking for when purchase a tour? How is the touristic industry in Dublin?

It is to highlighted tourism as a theme will help to set the context to apply this research not as an

object of research.

1.4. Information gathering and data collection

The immersion in such studies arose the need of using a mix method as it is as relevant to have

information from the sellers as it is to get from management to accomplish the purposes of this

project.

There are plenty of studies, techniques and applications that has been used in the same context.

Therefore, the challenge will be to apply it at this Dublin division and has an increasing of sales as

reward.

1.5. Expected outcomes of the study

At the end of the research, it will be possible to understand the application of data analysis on

different areas of interest. It will be possible to demonstrate data analysis can be used not only with

a customer focus but an internal one, turning the attention to sellers' team as an area of interest.

The application of data analysis on sellers to create a patron of performance linked to their

psychographic, so that an appropriate training and duty can be selected to their type and consequently,

sales are boosted.

1.6. Chapters overview

1.6.1. Chapter one: Introduction

Reader will have an overview of what is expected from this study.

1.6.2. Chapter two: Literature Review

A summary of relevant findings made from other peers.

11

1.6.3. Chapter three: Methodology

A logic sequence of the classification of the study which justify the methodology selected.

1.6.4. Chapter four: Findings and Discussion

Results of primary and secondary research will be analysed to determine an answer to the themes interrogatives.

1.6.5. Chapter five: Conclusions

An answer will be determined to confirm or to deny the researcher expected outcomes.

2. Chapter two: Literature Review

2.1. Introduction

The aim of this report is to prove data analysis can be used to identify the psychographic of sellers and to customise a training strategy for each one of them to boost sales.

To do this, it is necessary to understand data analysis and data mining, use and implications; psychographic of sellers and its link with training, which will be identified as well from data collection; and finally, what is tourism industry scenario in Dublin city, so that, a context can be set for this analysis.

2.2. Theme one: Implications of data analysis regulations

The use of data in Tourism, the relevance of GDPR, management, benefits and challenges. Aiming to have a look into the clauses and procedures which involve data collection management. So that it can be legally used.

Regarding GDPR in data analysis, it has been suggested in the paper "privacy preserving data sharing and analysis for edge-based architectures", the need of a framework which protects the privacy of data sharing. It is already available the chance of using specific algorithms, which analysed specific data. However, the problem goes further since there is a lack of a reliable centre of concentrated data. (Sheikhalishahi, 2022)

Another way to deal with big data in a business environment, is to work and process only anonymous data to not to have to attend to GDPR regulations. However, it won't ensure data protection, as identification is still possible though "background knowledge attack" which combine sets of data to identify individuals. Therefore, GDPR recognise as anonymous data set, only those ones which are highly complex to re-identify. (Gruschka, 2018)

GDPR define some principles to process data such as consent, data minimization, and storage limitation, if those principles are not followed then a close follow – up of GDPR ruling must be accomplished. (Gruschka, 2018)

According with this paper "Privacy Issues and Data Protection in Big Data: A Case Study Analysis under GDPR" when data comes from an existing data source, anonymization is mandatory which increases the limitations and complexity of the analysis. (Gruschka, 2018)

In contrast, the paper "The future of privacy..." proposes that currently, GDPR does not guarantee protection of personal data, especially in the international treatment while transferring data. (RODRIGUES, 2016)

The information above, exposed a clear need of the regularization on data protection law. Even though is clear that anonymization will help data protection, it does not guarantee it. Also, it complicates and limit data analysis, and in a certain way when the individual shares his/her information with certain institution they consent to gather their information. However, it should be clear how often and wide that information can be shared before the individual agreed to consent.

2.3. Theme two: Data mining as source of information

"Big data mining relies on the analysis of large amounts of data, which often contradicts the principle of data minimization". (Gruschka, 2018, p2)

According with the paper "On approach for the implementation of data mining to business process optimisation in commercial companies", data mining helps to get insights from customers, but at the same time it requires deep understanting and knowledge of customer behaviour to achieve this task. (PIVK, 2013)

To implement data mining used within the business is suggested to Creating lists of leads, to get access to the data and evaluate its potential options, optimisation to match groups and approaches in order to select the most probable to succeed, communication with the group selected and records of the responds and performance to feed the data base. (PIVK, 2013)

Also, in the paper "a framework for employee appraisals based on inductive logic programming and data mining methods", it is mentioned that some data mining techniques can be used for assessing if resources and time are available, so it proposed that employees' performance can as well be evaluated. (Agel, 2014)

Once again, personal data is a main factor to do accurate analysis. Most of the thesis and cases studies are based on analysing customer behaviour and aim to predict it. But then it is possible to use the same logic and techniques to evaluate employee behaviour and performance, looking for a match between one and other. Which type of employee is the customer looking for, and what type of customer the employee can approach better.

2.4. Theme three: Psychographic

The psychographic factor of sellers and customers when exchanging. The link between the sellers' psychographic and their performance.

In the paper "A Naturalistic Inquiry into Buyer and Seller Behaviour at a Swap Meet" suggest that in a swap meet (exchange between seller and buyer) the linguistic is leaded by a regional factor more than a socioeconomic one. (Belk, 1988)

This study also suggest gender as factor of identification with certain commerce activities. And, that depending on the context of the swap meet, cooperation between suppliers can prevalence over competition among them. (Belk, 1988)

In the paper "Consumers of distribution brands and involvement with respect to the product" it is proposed the relevance of the psychographic variables to identify potential buyers of private labels.

(Anon., 1999)

Martin Eisend suggests that buyers are influenced by psychographics to identify themselves with a brand and therefore, make a purchase decision. It defines psychographic characteristics of buyers like innovativeness, integrity, materialism, risk aversion, self-concept, status seeking, susceptibility and smart shopping among others. This analysis suggest that psychographics is more determinant than demographics in a purchase decision making. (Eisend, 2017)

Finally, Katharine Surette, suggest psychographics as base of training programs, because this focus will help the trainee to feel motivated for other factors besides commissions. She also, suggests this type of training will allow the trainees to define by themselves, what market is best to approach, when and how. Coming for themselves will make them feel more comfortable and confident with marketing techniques. (Surette, 1996)

These authors exposed the relevance of psychographics on both perspectives, seller and buyer, and shaped the concept of a possible match between one and another, leaving the question open if it is possible to define a seller for each buyer and to make every seller to identify their potential best buyers. Psychographics will play a main role in this project, and to obtain relevant information, data analysis will be used.

2.5. Theme four: Sales enablement

According with the paper "People, Process, and Performance: Setting an agenda for sales enablement research", sales enablement considers people, process and performance and the link between them is to transmit the appropriate value to the customer, through a better training for the salesperson. It mentions that according with Association for Talent and Development \$20 billion are spent on sales training with poor results; so that it is proposed to continuously train salespeople in a

focused design, right training to the right people at the right time, to cope with actual demand. (Rangarajan, 2020)

It also, suggest the introduction of KPI's as a method of measurement of performance but also of clarity and motivation for the salespeople. (Rangarajan, 2020)

Personal selling and sales management abstracts article, presents the seller empathy with the buyer as a moderator in a swap meet, it suggests an emotional connection as factor to influence buyer reaction before the seller. (Deeter-Schmelz, 2021)

In the paper "Mastering the Digital Transformation of Sales" it is discussed the importance of moving sales process towards a digital environment to stay competitive. However, regardless how good the transition is prepared it is not immediate success guaranteed, it can take several months and therefore it requires consistency. (Guenzi, 2020)

2.6. Theme five: Tourism

The book "Handbook of consumer behaviour, tourism and the internet" presents the new challenges for tourism industry. Despite the fact tourism has been well accepted in the online platform, the old interrogates of how to make people to interest on company product, has been transformed to how to make people interested on the company website or how to catch them easily, how to increase the website scope, etc. (Juline Mills, 2013)

According with an article in Savills, it is expected to deliver 24 new hotels for next year, according with some surveys, Dublin is positioned with 20% of the occupation compared within Europe and with UK. (Savills, 2022)

These two last present two interesting key points, occupancy in Dublin seems to be increasing and the positioning of customer services online will be key to succeed in this tourism industry.

3. Chapter three: Methodology

3.1. Theoretical Paradigm

This research will be performed under the interpretivist or constructivist paradigm. Because of the roots of the original idea are based in the researcher work environment, there is a individual and local interpretation of what can be involved in the results of the hypothesis, as the researcher knows the place and the individuals. However, the hypothesis cannot be proved unless the concept of the subjects of study are involved and even then, that might be a reality applicable only for this specific group.

Due to the idea of getting a full concept of knowledge based on the experience of management and staff, the answers are based on their perception. Answers that might be used to confirm or deny the researcher view of the relevance of data analysis with an internal focus, and therefore, this research can be classified as epistemological.

The participants will provide clarity to determine how valid is the researcher hypothesis, who, being part of the company is influenced by her own experience and perception of the work environment.

Therefore, an inductive approach has been adopted, where the conclusions will be constructed from the merge of the qualitative and quantitative results.

3.2. Justification for the adoption of method

A mix method has been chosen to determine how truth are the research assumptions. The use of a survey as a tool to gathering data from the staff will provide them anonymisation, so they give their opinions freely and it can be measured how close or far is the theory from their reality.

In the case of the interview, results from the survey might be presented to the interviewees so that they can offer their opinion based on their experience to try to interpret the results. The quantitative or structured approach gives the opportunity to prove researcher assumptions by focus the participant on the themes of interest, please see the questionnaire of the survey in the table below,

Themes	Questionnaire	
	Qs 1 Do you know how your performance in sales is? Qs 2 Would you say that knowing your performance is helpful to identify your strengths and weaknesses so that you can improve your sales?	
Data Mining	Qs 3 Would you say location is a decisive factor to make sales? Qs 4 How likely are you to compare your sales with your colleagues?	
	Qs 5 Would you say some nationalities are more likely to buy than others? Qs 6 What are your indicators to recognise a potential customer? a) Their Apperance (Outfit, shopping bags, etc); b) Their Behaviour (Relax, Happy, etc); c) Their interest on the tour; d) Use of maps, phone, etc; e) Their location	
Sales Enablement	Qs 7 When approaching a customer what of the characteristics below is decisive for you to approach them? a) Customer Smile; b) Customer Showing Interest; c) Customer Appearance; d) Customer making eye contact; e) Customer Behaviour	
	Qs 8 In a Scale from zero to five, being zero not important and five highly important, how important do you think it is customer service to a buyer when making the decision of buying from you?	
	Qs 9 When you are selling a product, would you say that you prefer to be informed about everything product related in an induction or you rather to learn as you go?	
	Qs 10 When sales training is in place would you say that you find more productive a general training or personalised?	
	Qs 11 Would you say you analyse the customers before approaching them? Qs 12 How likely are you to approach customers who seem unfriendly?	
Psychographic	Qs 13 What of the factors below, would you say influences the most to make sales: a) Confidence; b) Location; c) Language Proficiency; d) Competitive advantage; e) Speech	
	Qs 14 How likely are you to approach people who speaks a language that you do not speak? Qs 15 How likely are you to approach people who speaks your native language? Qs 16 When you make sales, you rather to interact with large or small groups of people?	

Table 1 Survey Questionnaire

The qualitative or unstructured approach gives the opportunity to gather deep information from the participants, their own interpretation of the scenario where their experience is key to determine which factors are more likely to be true for this environment. Please find the interviews questionnaire below,

Themes	Questionnaire
	Q _I 1 How long would you say data analysis has been used applied on sales within this business?
	Q ₁ 2 According with your experience how detailed is customers data collection in the business and how
	do you ensure it matches GDPR requirements?
	Q _I 3 Would you say the introduction of data analysis has beneficiate sales? If so, how relevant is
Data	anonymisation of data to make analysis?
	Q _I 4 Have you ever considered to use data analysis on sellers aside of use it to analyse their
	performance?
	Q _I 5 In your opinion is the data collection and management safely handling (access control, storage, etc)
	within the company?
	Q _I 6 What type of data would you say has been the mayor contribution to analyse sales within the
	company?
Data Mining	Q _I 7 Have you change or create products based on data analysis which have succeeded?
Data Mining	Q _I 8 In your experience, introducing data analysis as a source to estimate cost-benefit of training will
	positively impact sales?
	Q _I 9 Would data analysis make a positive difference in the way of addressing the needs previously discussed, regarding sales?
	Q _I 10 Do you know what psychographic means? If so, have you use it before and how?
	Q _I 11 Have you ever done a relational analysis between sales and the psychographic element of the
	sellers?
	Q _I 12 How relevant do you think is the psychographic element of the sellers to impact on their
Psychographic	performance?
	Q _I 13 Have you applied any sale strategy based on the relation between the psychographic element of
	the sellers and their performance? If so, has it been effective?
	Q _I 14 Do you think it would beneficiate the business if psychographic factor were integrated to analyse
	sellers? How?
	Q _I 15 Knowing that from sales enablement, the personalisation of training has been used with the on-
	street sales team; would you say that sales enablement has been the turning point to build a strong on
	street team?
	Q _I 16 In your opinion, a link between focus training and data analysis of performance has benefited
Sales	enough to keep it as a standard procedure?
Enablement	Q _I 17 If personal development of the seller is as important as knowledge of the product to make sales, would you say data analysis is an accurate source of information and evaluation?
	Q _I 18 Has this focus positively impacted sales?
	Q _I 19 Have you analysed the relation between sellers' performance and the type of tourists that they
	interact with? Would that be relevant for sales?
	Q _I 20 According with your experience, how is Dublin positioned as a touristic destine?
	Q _I 21 According with your experience, customers are more likely to prebook activities or more likely
	to buy as they arrived to destine?
Tourism	Q _I 22 How relevant is for tourists, customer service to close the deal?
	Q _I 23 How relevant would you say is to set a connection between the seller and your customers to
	close sales? To be alike?

Table 2 Interviews Questionnaire

During the first interview, it was noticed that because of the relation of the questions, the interviewee could have answered some questions before they have been made, therefore, the second and the third interview had a slightly different questionnaire. The latter being focused on the area of interest of each manager as they lead different departments. The one with more relation to this research is the sales and marketing manager, whose interview can be found in Appendix A.

3.3. Sampling

As it has been mentioned above, this research is performed within a Dublin division of a global touristic group, therefore, the target sample is embodied by its staff, a total of fifty members. In an effort to get more insights some ex-employees performing a position as CSR participated on the survey and some employees from the competitors in the same position as well.

In the case of the interview, the three main managers of the business has been chosen, because of their position, interaction with the group of interest and because they are the ones who made decisions within the Dublin division.

Therefore, this is classified as a non-probability sampling method, as this sample is chosen based on the interests of analysis of this research, performed on a specific company. This is a convenience sample, conformed by people who is currently working in the position of interest within the company or who used to work there, as well a small number of competitors will participate of the survey only.

For interview purposes and anonymisation the participants will be identified with a unique code, please find the codification in the next table of stakeholders interviewed for this study.

Code	Position	Setting	Experience
M01	Sales and Marketing Manager	Co. Dublin	5 Years
M02	Business Administration Manager	Co. Dublin	20 Years
M03	Operations Manager	Co. Dublin	8 Years

Table 3 Interviewee's codification table

Please refer to this table to identify interviewees, who will be cited with their codes from now on.

3.4. Explanation of what analysis method employed

The analysis method used was the thematic analysis, the three interviews were combined to get a glance of similarities or trends among the three interviewees. Please find below two examples of the analysis made,

	Not certain, own back end cover, limited access, not fully
GDPR	used (not deep analysis), internal breach, further actions,
	third party.
	Marketing strategy, major contribution, target market,
Analysis	segmentation, best of our abilities, data driven, what we
	know other companies do, better now
Internal use	Informal application, not attended, linked, needed,
mternar use	improve sales
M02 Data	Key words in interview (Codes)
GDPR	Certainly safe,
Analysis	Always used, more interest, more technology, better now,
Analysis	marketing, deep as possible
Internal use Always, helpeful, informally, broad knowledge	
M03 Data	Key words in interview (Codes)
GDPR	Not impact, nationalities, employee related is impacted,
ODFK	safely handling, limited access
	Always used, better now, more detailed, targetting tool, do
Analysis	at certain extend, demographic of employees, look at the
	teams and you know it
Internal use	Sales, sensitive data only,

Key words in interview (Codes)

M01 Data

Table 4 Thematic analysis table theme one

Mot framing and psychogrpine	ixey words in interview (Codes)
Roots	Formal, generalised, previously used, groupal, refresh training
Focused Training	Not viable, not used, too many variables, uncertained, time consumption, not standardise, dependable, broad
Psychographic	Relevant, identifiable, informally explored, key for sales, confidence
M02 Training and psychographic	Key words in interview (Codes)
Roots	Always used, standardise, indutcion, refresh training
Focused Training	Not necessarily needed, useful,
Psychographic	Done at interviews date
M03 Training and psychographic	Key words in interview (Codes)
Roots	More than needed, ensuring success, induction, refreshing training, HR, driving regulations
Focused Training	Too much training, focused training by duty, sales software, customer software, felxible
Psychographic	Not formally known, demogrhapicly speaking is reviewed, focus on age, looking for a carreer, turn over reduction, influenced

Key words in interview (Codes)

Table 5 Thematic analysis table theme two

3.5. Ethical section

M01 Training and psychographic

As mentioned above the participants has been anonymised to ensure the confidentiality and to protect their privacy. Therefore, they will be identified through their unique code. A copy of ethical form can be found on Appendix B of this study.

Regarding consent, an informed consent form has been delivered to interviewees the process has been explained to them, a copy of the consent form from the interview transcript can be found in Appendix C of this study. In the case of the survey the consent form has been included at the start of the questionnaire, so the participants are informed and approved or reject their participation. The survey consent form can be found in Appendix D.

The questionnaires were previously tested to ensure the correct functioning, so that anonymisation was safely provided.

Finally, the format of investigation triangulating primary and secondary research will be used in this study to answer the themes questions and therefore, the research question. Conscious time was used to create the questionnaires as clear as possible and avoiding leading expected answers but looking for the participants insights. To analyse the interview responses the thematic coding process is used to interpret the interviewee intention, as shown previously.

4. Chapter four: Findings and Discussion

4.1. Theme one: Implications of data analysis regulations

From the qualitative research the results from Q_I1 to Q_I5 are considered to answer the question: What are the limitations presented on data analysis when it comes to GDPR regulations?

$Q_{I}1$

"Definitely since I've been in the company so that's for the last five years uh there was some kind of a data analysis being used, and nowhere close to what we're currently doing and nowhere close where it will probably should be..." (M01)

"I'd say this has been done since the very beginning of pre-booking data being available" (M02)

"We have always used data analysis; our new ticketing system has given us more information...we know why tourists are in the city..." (M03)

$Q_{I}2$

"I'm not a technician and we use an outsourcing company that we rely on legislation and revising the GDPR as well from our perspective and, if I look at my back end, there are certain elements of where potentially you can say there's uh a "breach" of GDPR if you really go into details ... are we using those in a negative sense of a way or contract those people? I don't believe that's the case, but it's a human factor that you can really never fully rely on, let's just pass, because you are not doing that, I'm not doing that, it doesn't mean that the third person coming in is not going to take advantage of those and, then it puts a question on: is the protection on the highest levels? at this point, I don't believe that that's the case." (M01)

"Absolutely, absolutely!" (M02)

"...The customers information we do not keep what we do not need to keep...regarding employees we have limited access through passwords..." (M03)

Q_{I4}

"Yeah, of course, you definitely need to go deeper..." (M01)

"Absolutely yes, yeah!" (M02)

"We do to a certain extent...we look to their age group...certain information will be analysed..."

(M03)

Literature Review Source

According with this paper "Privacy Issues and Data Protection in Big Data: A Case Study Analysis under GDPR" when data comes from an existing data source, anonymization is mandatory which increases the limitations and complexity of the analysis. (Gruschka, 2018)

Researcher analysis

It can be determined from the insights of the company; data analysis is relevant from simply knowing where or who to target up to analysed who is meant to be hired. Despite the fact the interviewees coincide in sensitive information is not being used, it is the interviewee M01, with more interaction with data, who perceives that protection is not at the highest of the levels, regardless the

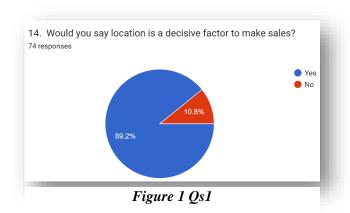
precautions taken.

The latter though coinciding with the author Rodrigues, who propose, GDPR does not guarantee protection of personal data, especially in the international environment.

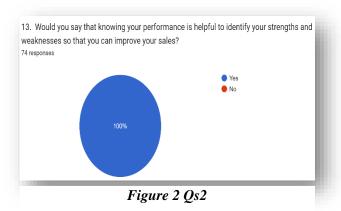
However, the interviewees agreed on the fact of sensitive, personalised data is not relevant for the business from the customer perspective and that employee wise would be fully protected, which leads to assume that GDPR is not impacting data analysis within the company.

4.2. Theme two: Data mining as source of information

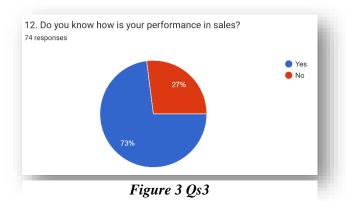
From the quantitative research the results from $Q_{\rm S}1$ to $Q_{\rm S}5$ are considered to answer the question: How to use data mining to analyse the seller (profile, performance, behaviour? please refer to the charts below,



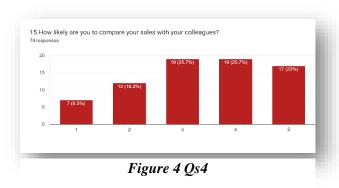
From the total sample of 74 people 73% is aware of their performance, a total of 54 people. At least they know how many sales they have.



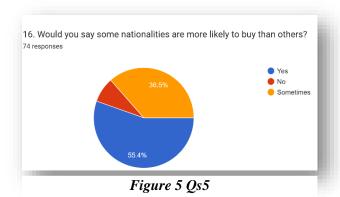
Hundred percent of them agreed on having this knowledge would help them to identify weaknesses and strengths, so that they can improve sales.



66 participants considered location as determinant factor to make sales.



Most of the participants are likely to compare their sales within the work environment, with a total of 36



55% of the participants considered customers nationalities a factor to make sales, 37% is uncertain but only 8% are positive that is not a relevant factor.

From the qualitative method the answers of the interviews considered are from Q_I6 to Q_I9, please find below their insights regarding the use of data within the company.

Q_I6

"...we're partnered with a company that does our QR codes and does the analysis for the QR codes we're using Google Analytics wherever we can use that and you're asking to see the data analysis from the direct partners and now I'm talking about for example OTA's or big OTA's that do business across the globe and in some circumstances with our competitors as well, but I'm interested in seeing is for example time of the booking of the ticket the trend that we're having there, is it one specific product and add and change of that product impact our standing on the ratings of that page? what is the nationality behind that? what's the market that we're covering? what are the locations of those tickets being booked? are there mostly being booked in the city while the customer is already here? are they pre booked before they come in? what's the time frame behind that? so all of that data is really useful in creating the strategy short and more importantly long term for the for the company." (M01)

"I would have to say ventrata on a city level, yeah!" (M02)

"...we know that for instance, when there is a match, our sales are going down, we know when there is a concert our sales are going down, we know when there is an event on the city our sales are going up..." (M03)

Q₁9

"...I'm absolutely certain that it will work, any type of information extra information helps for everything including building up and growing the business and if that business is being grown by the growth of sales, then that's definitely what would happen."

"Yeah absolutely!" (M02)

"Yes, data analysis is always has been useful to us... (M03)

Literature review source

According with the paper "On approach for the implementation of data mining to business process optimisation in commercial companies", data mining helps to get insights from customers, but at the same time it requires deep understanting and knowledge of customer behaviour to achieve this task. (PIVK, 2013)

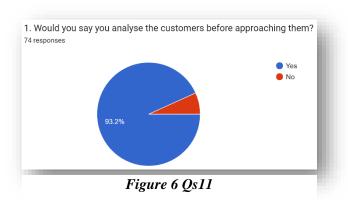
Also, in the paper "a framework for employee appraisals based on inductive logic programming and data mining methods", it is mentioned that some data mining techniques can be used for assesing if resources and time are available, so it proposed that employees' performance can as well be evaluated. (Agel, 2014)

Researcher analysis

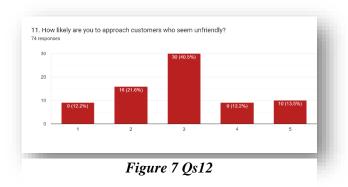
From the previous source, it can be said regarding data mining, the interpretation of this information goes both ways, internal and external. According with quantitative results, from the staff perspective goes from understanding performance, strength, and weaknesses to a personalised level, which allows to improve sales, to the identification of external factors, which influenced their results and then the division's. From managerial perspective, not only represents the core of the strategies to sell but a source of information to perform daily duties. However, the interviewees recognised the value of using data analysis as method of employee's assessment, as it is suggested by the author Aqel, but at the same time, they exposed there is not a clear and formal structure of deep internal analysis that could be a strong key to boost sales.

4.3. Theme three: Psychographic

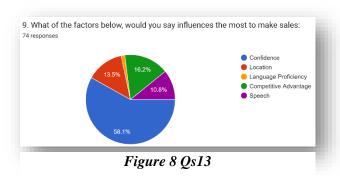
From the quantitative research the results from $Q_{\rm S}11$ to $Q_{\rm S}16$ are considered to answer the question: How to apply psychographic to influence seller performance? please refer to the charts below,



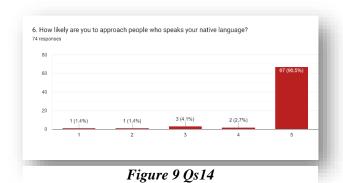
93% of he surveyed confirmed to analyse customer previously to approach.



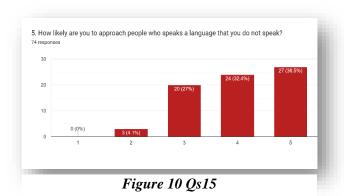
41% could not adopt a posture, they were indecisive and 34% are more likely not to approach an unfriendly appearance.



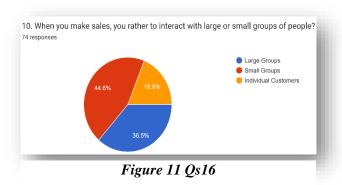
58% of the surveyed recognised Confidence as the main factor to make sales.



91% of the participants would approach when they can comfortably express themselves.



However, the same sample expressed they still tried even if they do not know the language of the customer.



45% of the surveyed expressed they rather interacting with small groups when selling or even with individuals with 19% of preference.

From the qualitative method the answers of the interviews considered are from Q_I10 to Q_I14 , please find below their insights regarding the use of data within the company.

Q_I10

"Psychographic. I have an idea, but it would probably be better for this, for you to explain it in more detail... the period that I've been in this company, when I came, we had different software, different approaches but some kind of a data was always used. For example, historically speaking we knew what the nationalities are, or the breakdown of the nationalities and what's the market that we need to focus our marketing efforts more, and which ones are the ones that we need to do less or potentially build up on those." (M01)

"Yeah, I think is very relevant." (M02)

"Not at the top of my head...We are currently looking at it, from a drivers perspective, so demographically speaking most of our drivers are not far from retirement age, at the moment, we are on 20, 30% of five years from retirement...we are trying to get people who is probably to stay there maybe for the next decade... the same with the on street sellers, we are looking to people that might be not necessarily students...people that might be looking for a career within the company..." (M03)

Q₁**14**

"Yes, yes! It is necessary, I don't believe we were doing it, as scientifically as possible, but it's definitely necessary. You wouldn't be talking about the same thing, same tools and same approaches to a person that's 19 years old than the person that is 60 or 70 years old." (M01)

"Not really, I mean we've tailored sales training as you know, the factor in that element of sales...I think that's done at interviews date." (M02)

"At the moment it is relevant as we are trying to refocus the type of employees to be hired, changing from drivers who are just looking for a window to reach their retirement age or on street sellers that might stay just for the summer, realistically, we invest time, effort and knowledge on training them each time." (M03)

Literature review source

Martin Eisend suggests that buyers are influenced by psychographics to identify themselves with a brand and therefore, make a purchase decision. It defines psychographic characteristics of buyers like innovativeness, integrity, materialism, risk aversion, self-concept, status seeking, susceptibility and smart shopping among others. This analysis suggest that psychographics is more determinant than demographics in a purchase decision making. (Eisend, 2017)

Finally, Katharine Surette, suggest psychographics as base of training programs, because this focus will help the trainee to feel motivated for other factors besides commissions. She also, suggests this type of training will allow the trainees to define by themselves, what market is best to approach, when and how. Coming for themselves will make them feel more comfortable and confident with marketing techniques. (Surette, 1996)

Researcher analysis

It is mentioned by the interviewees that they are not related with psychographic, however, to a certain extent they have been working around the concept for different reasons, as expected because of their positions. They recognise the importance of having psychographic as part of data analysis, and even though the idea is not new, specially coming from other industries, it has never been formally analysed within the company, not from the customer perspective neither the seller perspective.

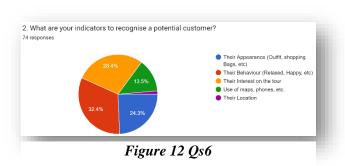
However, the fact of this organisation providing a service implied human interaction in many directions and levels, which represents the company existence. Hence, as the authors Eisend and Surette suggested, psychographic influenced both buyers and sellers therefore, attending the subject might be a smart movement of the company for the coming years.

From the quantitative source, and according with M01, it can be inferred staff is not applying selling techniques but providing customer service to individuals that already has expressed interest, which opens the door to think, they have the wrong mindset, more than half of the sample recognise confidence as the main factor to make sales, therefore, they know a higher performance relies on themselves. It can be their motivation is not necessarily triggered by getting the sale.

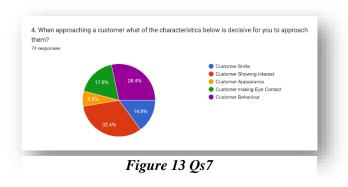
Whatever the case is, both customer and seller can be influenced by their psychographic being analysed. The better the sellers are known, the better they can be approached to teach them, motivate them, influence them.

4.4. Theme four: Sales enablement

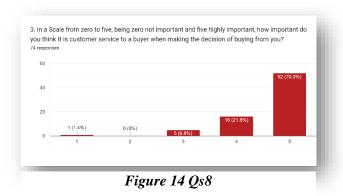
From the quantitative research the results from $Q_{s}6$ to $Q_{s}10$ are considered to answer the question: How is personalisation of training tool being used here? Has it ever been applied? please refer to the charts below,



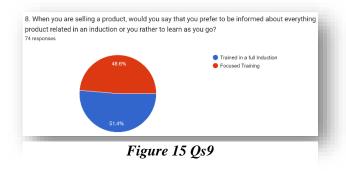
32% of the participants recognised customers because of their behaviour and 28% because of their interest on the tour.



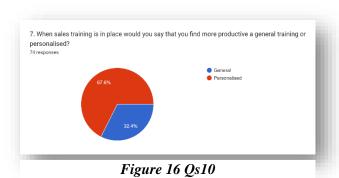
32% of the participants approaches customers if they show interest.



70% of the surveyed identified customer service as closing deal element.



51% rather having a general induction than focused training to know the product. In is undecisive.



69% prefer personalised sales training.

From the qualitative method the answers of the interviews considered are from Q_I15 to Q_I19 , please find below their insights regarding the use of data within the company.

Q₁**1**5

"Yeah, from our own perspective and then to an extent from my perspective yes it would help. Is it fully viable I'm not exactly certain...there's so many variables that you can't really uniform that to an extent you can put that in the uniform cell but the next person coming in is already going to be outside of that." (M01)

"Training wise, I know from our sector...the first thing on common among drivers is the amount of training we do compared with others...We go from the sales process, the customer service, our culture...we know already we are doing a lot more training, a lot more focused training on the driver's side than most of the companies in the industry do...we set them up the best that we can to success." (M03)

Q₁**19**

"No." (M01)

"Yes." (M02)

"No." (M03)

Literature review source

Sales enablement considers people, process and performance and the link between them is to transmit the appropriate value to the customer, through a better training for the salesperson. It mentions that according with Association for Talent and Development \$20 billion are spent on sales training with poor results; so that it is proposed to continuously train salespeople in a focused design, right training to the right people at the right time, to cope with actual demand. (Rangarajan, 2020)

Researcher analysis

It can be subtracted from the interviewees training is a main subject for the company and they cover as much as it is possible. Recognizing that focused training is definitely much more effective when it comes to confidence and therefore, boosting sales. Even the staff is aware of how relevant other factors are, even more than just the product, to make sales, for instance customer service.

Theory proposes the idea of training wrongly delivered, as within this company, training is provided but results could be better and staff expresses through the survey, they rather having a focused training, especially when it comes to sales.

So, it is not lack of training or interests for any of the parts, but the question arises here, if the company knew better their staff needs, the training would be more effective? During the interview, M01, recognize that personalizing training would definitely bring better results but expressed uncertainty on if it would be worth it enough. Refer to interview in Appendix A.

4.5. Theme five: Tourism

From the qualitative method the answers of the interviews considered are from Q_120 to Q_123 , to set the context in which this company works, more than replying to a question. However, for purposes of this study, it is valid to questioning: What are tourists looking for when purchase a tour? How is the touristic industry in Dublin? Please find the insights of the interviewees below,

Q₁20

"...after the COVID I don't believe that we have as strong standpoint as we did before, because there's so many different things that have changed globally; and then internally as well, that the prices of living, the prices of hotels, the prices of products are not currently great, we have a positive momentum because euro to dollar ratio is now benefiting people from United States, so you're looking at 60% of all of our customers coming from the North America, and of course the establishments being closed or closed for people doesn't really help us. I do believe that we kind of need to be more aware of where do we actually stand in comparison to other cities and then modulate our long-term strategy based on that and, that's being done to an extent I don't believe that that's being fully explored yet." (M01)

"I would say it's very well positioned" (M02)

"Dublin is a good tourist destination, but it is a once in a lifetime visit, it is a very expensive place to visit, the hotels are expensive, the attractions to visit, the food, the beverages are expensive, and people may go to Greece three or four times in a lifetime during summer, but Dublin is once in a lifetime, you are not coming here every year if you get me" (M03)

Q₁23

"This might sound a little bit off but from my experience that's absolutely the case... if you're a person that has a positive attitude, if you're a good-looking person it also helps, because people want to talk to good looking people..." (M01)

"Yeah! You need to do you need to have rapport between buyer and seller" (M02)

"Sales for our company I suppose there are three different areas and they all need a different approach; for instance, agents sales they need to be competitive, they need to engage with people because there are others competitors...they have to attack in certain way...the team I managed, the drivers, the job is 70% done before they arrived to the bus because the customers are at the bus door and they seem to express an interest in travel." (M03)

Literature review source

According with an article in Savills, it is expected to deliver 24 new hotels for next year, according with some surveys, Dublin is positioned with 20% of the occupation compared within Europe and with UK. (Savills, 2022)

Researcher analysis

From the company insights it can be said, Dublin is a popular touristic destination because of different factors compared to the main destinations in the world. It is either an event on the city, a tradition or pandemic effect, which is acting in favour of the city, but regardless the trigger, it is a good time for tourism. However, this uncertainty is not ideal on any business.

Adding to the negative influences on tourism, there is the fact that Dublin is a really expensive city to visit, accommodation, entertainment, food and beverage are above average and that is a reality that does not seem to improve in the coming years.

In contrast, there is a sales factor that it is consistent according with the interviewees, regardless the source of tourism, tourist look for connection, link, customer service, they are more likely to buy if they are alike to the seller. This is a key data to pay attention.

In conclusion Dublin is a good place for tourism industry and its customer are looking for experience, entertainment, a good time, a nice memory, they are in general terms looking for connection.

5. Chapter five: Conclusions

5.1. Conclusion

It has been demonstrated the relevance of data analysis within this organization to make decisions and more importantly to succeed. In a way or another, data gathering, data analysis and training have always been present as main subjects to operate the business.

However, it was exposed the lack of familiarity from management with psychographic, even though, this is a company made of people for people, more than a product there is a service in between, bringing customers around Dublin town.

It was possible to identify work experience in the industry, as a determinant factor to provide answers coming from management. It was evident, that for M02, with 20 years of experience, most of the selling tools has been applied on the business and her knowledge of the whole body is deeper, which enable her to be concrete on her answers.

But, compared with M01 and M03, with lees experience within the organization, differing can indicate that these tools, techniques, analysis, have not been applied recently. And, as they themselves said, even though data analysis has always been present, there is no comparison with depth, quantity and feasibility of current data analysis, therefore, the same logic can be applied to psychographic factor of the sellers to boost sales.

With current technology psychographic of employees, can be mined (gathered, classified, analyzed) way faster and, training can be structured and delivered involving the technological element so that, time and effort are invested once, and the rest can be automatically build from there.

There are from the most complex to the simplest options in artificial intelligence that can speed up the process. Leaving aside, the interrogative if the investment on focused training will be worth it.

Secondary and primary research proved focused training as a relevant key of success when it is well

structured. The latter depending on the adequate knowledge of the psychographic that can be handle by data analysis.

Therefore, it is concluding the use of data analysis on the seller behavior (psychographic) has a high level of impact on sales at Dublin division of a touristic global group.

5.2. Limitations

One of the interviewees did not elaborate the answers, which limited to highlight a more precise trend or similarity among the three interviewees.

Because of the relation between researcher and the company, at times it was complicated to eliminate the judgement from the statements.

Knowledge acquisition occurred at the same time that the study was being performed so doubt and ignorance was an obstacle to speed up.

5.3. Recommendations

The fact sales enablement is a marketing tool and data analysis is the trending tool of every industry, might present a separation among them, it can be an abstract division between them because of the people behind of the execution of both. For instance, regardless the training theme, it is normally managed by human resources, data analysis is normally executed by IT or marketing departments, which work together but not necessarily on the same path.

It is suggested that communication channel among departments is as wide and clear as possible and that everybody have an open mind to work differently, same tools, different procedures.

The fact this study was performed under Dublin circumstances, does not limited its application to similar companies within and outside of the industry, the only particularity might be, it is embodied and depending on people.

The results of the pilot experiment ran in Dublin can be used for future analysis.

References

Anon., 1999. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=30&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBlPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#AN=edsoai.on1286612530&db=edsoai [Accessed 28 April 2022].

Aqel, D. M. A., 2014. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/vid=22&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#AN=edsble.594939&db=edsble [Accessed 1 May 2022].

Belk, R. W. S. " J. F. a. W. M., 1988. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=26&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#db=edsjsr&AN=edsjsr.2489153 [Accessed 15 May 2022].

Deeter-Schmelz, D. R., 2021. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=45&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#AN=153952061&db=buh [Accessed 3 May 2022].

Eisend, M. H. P. &. A. V., 2017. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=33&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#db=buh&AN=126368367 [Accessed 28 April 2022].

Gruschka, N. M. V. V. K. &. J., 2018. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/vid=8&sid=11901748-42fe-4015-9829-

1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d #AN=edsarx.1811.08531&db=edsarx [Accessed 1 May 2022].

Guenzi, P. a. H. J., 2020. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=54&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#db=buh&AN=145035772 [Accessed 1 May 2022].

Juline Mills, L. J. E. M., 2013. EBSCO. [Online] R. **Available** a. at: https://eds.p.ebscohost.com/eds/detail/vid=59&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBlPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d #AN=606604&db=nlebk [Accessed 15 May 2022].

PIVK, A. V. O. K. D. &. R. R., 2013. EBSCO. [Online] Available at: PIVK, A. et al. (2013) 'On Approach for the Implementation of Data Mining to Business Process Optimisation in Commercial Companies', Technological and Economic Development of Economy, 19(2), pp. 237–256. doi: 10.3846/20294913.2013.796501.

[Accessed 3 May 2022].

Rangarajan, D. e. a., 2020. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/vid=41&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBlPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#AN=145498019&db=buh [Accessed 15 May 2022].

RODRIGUES, R. e. a., 2016. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=9&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBIPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#AN=119283140&db=buh [Accessed 1 May 2022].

Savills, 2022. Savills. [Online] Available at: https://www.savills.ie/research-and-news/savills-news/316812/4-500-dublin-hotel-rooms-to-be-delivered-by-2023 [Accessed 20 March 2022].

Sheikhalishahi, M. e. a., 2022. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/detail?vid=4&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBlPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d#AN=155182101&db=buh [Accessed 10 May 2022].

Surette, K., 1996. EBSCO. [Online] Available at: https://eds.p.ebscohost.com/eds/detail/vid=38&sid=11901748-42fe-4015-9829-1058973e99fa%40redis&bdata=JkF1dGhUeXBlPXNoaWImc2l0ZT1lZHMtbGl2ZQ%3d%3d #AN=9604086148&db=buh [Accessed 5 May 2022].