

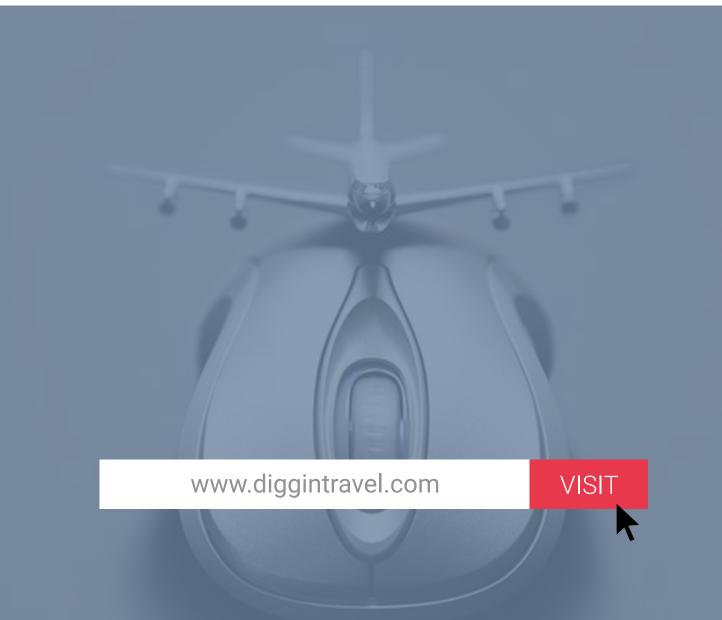
2019 AIRLINE CONVERSION OPTIMIZATION SURVEY

Airline industry insights for a higher conversion

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All the know-how and inspiration for **SMARTER TRAVEL MARKETING** an airline needs.



ABOUT THE AUTHOR

Iztok Franko is passionate about digital marketing and e-commerce. He has more than 10 years of experience as a CMO and CIO in airline, travel and multinational companies.

He currently works as a strategic digital marketing and ecommerce consultant for global airline and travel brands.

Through practicing true data-driven digital marketing, testing several ecommerce processes and experimenting with different team management approaches, he has established a conversion optimization framework that works.

Iztok also regularly writes and speaks about travel and airline marketing, ecommerce, conversion optimization and ancillary topics.

He is the founder of <u>diggintravel.com</u>, a content platform for smarter travel marketing.



ABOUT DIGGINTRAVEL

Diggintravel is a content platform, designed for airline ecommerce and digital marketing professionals.

Diggintravel was built to help digital marketers in the travel industry, especially airline professionals who run and manage online sales.

We provide in-depth insights and research on airline ecommerce and digital marketing. Diggintravel specialzies in airline conversion rate optimization and ancillary revenue disciplines and by combining both helps airlines become true digital retailers.

If you are an airline looking to grow your online sales; we can help you with tailormade workshop for airlines, advanced analytics designed for airline booking funnel and conversion optimization consulting services.



ABOUT THE SPONSOR

Since 2013, Travelaer has been creating digital products for the travel industry and experimenting to make booking and managing travel easier for Customers.

We've developed a reputation for being a user centric software company that helps airline solve difficult technical and Customer challenges typically not solved by legacy airlines IT companies.

Haven't heard of Travelaer before? We've been busy...

We're known for helping airlines like Icelandair and Finnair take their once complicated stopover and multi city booking flows and make them simple, and delightful for Customers to use- increasing conversion rates and revenue.

We've helped airlines like Air France automate pain points in their Customer journey such as canceled bookings, by utilizing chat bots to distribute alerts, new boarding passes, and hotel vouchers to the Customer via Facebook Messenger. We designed and built the first Cash & Points loyalty booking engine with persistent cart and slider that allows Customers to pay for 100% of airline products with points.

Now, we are the first travel technology company to begin integrating artificial intelligence to automatically improve the user experience by selecting the right combination of pricing, arrangement of features and functionality, and the user interface.

These projects were made possible because of the Travelpaas platform, which was designed from the ground up with customer centricity and conversion rate optimization in mind. Travelpaas empowers airlines to take control of their digital experience across all phases of travel via API, NDC, Responsive Web or Mobile applications.

www.travelaer.com

Since 2013, Travelaer has been trusted by many of the worlds top travel companies to help them with understanding their Customers and building digital strategies

Amadeus, Air France, Air Canada, Europcar, El Al, Finnair, Icelandair, Air Iceland, Sata, Azores Airlines.

" Travelaer is a breath of fresh air.

They have helped us accomplish goals we thought we could only dream of. With its agile teams and clear focus on the user experience, Travelaer is bringing simplicity and an elevated customer experience to the airline IT business. **"**

-Icelandair



THE FOLLOWING EXPERTS PROVIDED INSIGHTS FOR THE 2019 AIRLINE CRO WHITEPAPER:



DR. KARL BLANKS

CTO & Founder of Conversion Rate Experts

Conversion Rate Experts is a Googleauthorized consultancy that coined the term "conversion rate optimization" (CRO). Karl is a co-author of the CRO best-selling book Making Websites Win. He has helped to grow web businesses in many highly competitive industries, working with companies such as Apple, Amazon, Facebook, Google, Dropbox, PayPal, Lloyds Banking Group, GQ, and Sony. Karl is a former scientist, with a PhD from Cambridge University, England.



EMRE GÜNEY

Senior Growth Manager at Skyscanner, previously Head of Digital Product & Growth Marketing at Pegasus Airlines

Emre is a creatively driven growth marketer who has an endless passion for growth hacking, user experience, conversion optimization and analytics. He is always looking for new, inventive ways to understand customers in order to build and grow good digital products.



BEN JESSON

CEO & Founder of Conversion Rate Experts

Conversion Rate Experts is a Googleauthorized consultancy that coined the term "conversion rate optimization" (CRO). He has helped to scientifically optimize the profits of some of the web's most sophisticated companies, including Apple, Amazon, Facebook, Google, and Dropbox—plus many blue-chip enterprises and fast-growing startups. They have measurably grown hundreds of businesses in over 80 different verticals, in 11 languages, and in 34 countries. His work has been featured in many leading publications, including Fortune, Forbes, Psychology Today, The Telegraph, and The Financial Times.



diggin travel

RUI PEREIRA

Head of Ryanair UX Research & Usability

Rui is immersed in a whole range of UX research activities, including usability testing, benchmarking and field research. He implements research methodologies and best practices into the digital development process and manages the quantitative and qualitative aspects of user research to ensure a best-inclass user experience is achieved.



MARTYN REDING

Head of UX and Optimization at Virgin Atlantic

Martyn is an experienced team leader with a background in building teams of designers, researchers and writers. He has worked with some of the world's top brands including BBC, Channel4, Diageo (Archers, Baileys, Smirnoff), Sony, O2, Easyjet, Tesco, John Lewis and Ikea. He says he would redesign the whole internet if he was given half a chance.



BOŠTJAN KOŽUH

Data Expert and Partner for Digital Analytics at Diggintravel.com

Boštjan helps companies connect business with technology, uncover insights locked within their data, and compete on analytics. He is an expert in visualization, analytics and big data using QlikView, Qlik Sense, Microsoft Power BI, SAS Visual Analytics, R Studio, Microsoft Analysis Services, Microsoft Integration Services, Tableau Software and the SAS Platform. His insights help Diggintravel's clients find conversion gaps and identify scenarios for optimization.



VINCENT PEIJNENBURG

Data Scientist at Transavia

Vincent works at Transavia in collaboration with Vrije Universiteit Amsterdam. His data science traineeship at the post-master level includes subjects such as Data Mining, Predictive Modeling, Machine Learning, Optimization and Statistical Analysis. He provides insights that helps Transavia's Base Direct team increase conversion on their website.



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CHAD SANDERSON

Program Manager, Experimentation Platform at Microsoft and CRO Expert

Chad is a digital optimization, testing, and personalization specialist focused on the strategy, design, implementation, and analysis of winning experiments. He is a passionate believer in the power of data and combining deep actionable insights with UX and content strategy to create better websites and mobile apps. Chad has the ability to explain the power of optimization on any level, to the statistics-minded data scientist or to the company's most important stakeholders, and can create the necessary processes to imbue the company culture with an optimizer's mindset. He was a featured speaker on optimization at Adobe Summit 2018 and CXL Live 2018.



LEE BARRETT

Director of Ancillary Revenue at VivaAerobus

As Director of Ancillary Revenue, Lee has led key business transformation projects, including the transition from open seating to full assigned seating on all flights, establishing new ancillary collection channels in airports, and the deployment of new technologies to support revenue collections. Lee and his team are using A/B testing and artificial intelligence to find new ways to grow VivaAerobus's ancillary revenue.



FAICAL ALLOU

Product Owner Data Science at Trivago (previously at Skyscanner, Sabre, Lufthansa Consulting, Royal Air Maroc, and Air France)

Faical is passionate about travel and data. He has vast experience in strategy, business development and data science in the travel sector. He has consulted for various airlines and previously worked for travel digital companies Skyscanner and Trivago. Faical is also author of the novel A Lifelong Flight.



MIKE SLONE

Chief Experience Officer at Travelaer

Mike leads a talented team of international UX and software experts who are creating an innovative technology platform for airlines to enable a better customer experience and gain market share. He has been working in the digital space for 18 years and has a deep passion for human-centered design, experience research and innovation in the travel industry. Mike has designed awardwinning work for Dell, Vail Resorts, Microsoft, HP, Southwest Airlines and countless international airlines.



WHERE'S WHAT

PART I. **INTRO AND HIGH LEVEL RESULTS**

INTRODUCTION

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INTRODUCTION

2ND AIRLINE CONVERSION RATE OPTIMIZATION SURVEY AND RESEARCH

(AUTHOR'S NOTE)

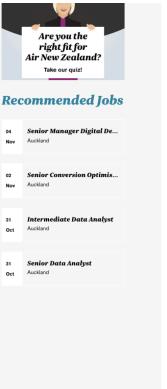
Wow! The past year has been one hell of a ride.

I started Diggintravel with one major goal – to put conversion rate optimization (CRO) on the map for airlines. After almost ten years spent in the airline ecommerce and marketing world, I felt one of the most important marketing activities was not getting enough exposure. (*If you ask Rand Fishkin, digital guru and founder of Moz, CRO is actually THE single most important marketing activity because it makes every visitor exponentially more valuable.)

So, I embarked on a mission to build more exposure for this crucial marketing activity.

Diggintravel was built to help airline ecommerce professionals grow their CRO skills and build up their experimentation programs. We want to help you run more tests, become more user-centric, optimize your websites and grow your online sales faster. I know it might sound simple, but it's not. So, we got to work.

At the end of 2017, Diggintravel conducted its first-ever Airline CRO Survey. 28 airline ecommerce and CRO pros provided their insights and helped us build a CRO framework for airlines. In addition, we held a CRO webinar and built a special airline CRO category on our blog. We published 18 long-form articles on various conversion optimization topics.



Senior Conversion Optimisation Specialist

Kia Ora!

The **Senior Conversion Optimisation Specialist** role is responsible for developing and implementing Air New Zealand's Conversion Optimisation strategy to drive revenue growth and customer satisfaction. This is an exciting opportunity to become part of a Digital Analytics & Optimisation team that is putting customers at the core and supporting Air New Zealand in becoming a best in class digital airline retailer globally.

Utilising quantitative and qualitative data to identify, test and implement growth initiatives, this role will drive the expansion of a highly successful web, mobile and app testing program. The ideal candidate will:

Have documented experience in growing conversion or other KPIs through experimentation.

- Have demonstrable experience with A/B/Multivariate testing tools e.g. Optimizely, SiteSpect, Adobe Target or similar.
- Understand user behaviour and have an idea of how people view and use websites, what can
 persuade users to take action, and will be aware of psychological triggers.
- Have a passion for experimentation, thrive on analytics, and have a good command of one or more of the leading digital analytics platforms to leverage user behaviour insights and identify customer pain points.
- Be familiar with advanced statistical methods, understand statistical significance and the importance of segmentation and sample size.
- Be good with people and able to confidently articulate insights to a wide stakeholder audience whilst being vocally curious and asking lots of questions - the right questions, to formulate the appropriate hypothesis for each test.
- Have the ability to tell good design from bad design and be able to articulate the difference, whilst being able to dissect, analyse and test designs.

If you would like to learn more about the position please check the attached expanded job information sheet and apply online.

At Air New Zealand, we are proud supporters of diversity and inclusion and believe that the people are our greatest asset. While everything else we do in our operation can be replicated by our competitors, it's is our people that truly set us apart. We nurture an environment that is holistically inclusive, diverse and collaborative. We are firm believers in celebrating differences and encouraging a workplace and culture where you can be yourself and thrive.

Job Details

#JR5094					
17 Oct 2018					
02 Nov 2018 23:55					
Auckland					
Customer Products & Digital Retail					
Permanent					
More details (document)					
1810 Senior Conversion Optimis $\underline{\downarrow}$					

Ads for airline CRO roles like this one from Air New Zealand are not unusual anymore



We interviewed digital experts and wrote about real airline case studies. All articles are available here:

https://www.diggintravel.com/blog

As I look back, I'm really happy to see that CRO is building momentum. It's growing not only in the digital, startup and SaaS communities, it's picking up in the airline industry as well. I see more and more airline CRO roles appearing every day. As you'll see in the survey results, many airlines are making progress in their CRO maturity, and many others are reaching out to me, wanting to learn more about how to start their CRO programs.

But, listen up. We won't stop here.

CRO is about continuous learning and growing, and that's what we plan to do with our research as well: listen to you, learn and grow.

This year we took it one step further. We wanted to give you something else in addition to the survey results and analysis. Based on your feedback from our articles, we see that you like insights from real experts most.

So, I talked to them. I talked to the best CRO experts from airline, travel and other industries. Each of them explained facets of different areas (like analytics, user research, testing & experimenting...) and provided their valuable insights. I started the 2017 whitepaper with a reference to a CRO book (Peep Laja's How to Build Websites that Sell) that ignited my passion for CRO and changed my life. In keeping with tradition, I'll add a great CRO book reference to this intro as well. Dr. Karl Blanks and Ben Jesson are two of the pioneers of the CRO world. Their new book, **Making Websites Win**, is a great reference if you want to learn about CRO.



"Making Websites Win" by Dr Karl Blanks and Ben Jesson

But, as promised, there's more. We took things a step further and I talked to the authors. Karl and Ben are just two of the many experts that provided their tips for this research.

We want you to move the needle for CRO in your airline even further.

Enjoy! Iztok Franko

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HOW TO GET EXPOSURE AND PUT YOUR CRO PROGRAM ON THE MAP

[A Preface Interview with **Dr. Karl Blanks and Ben Jesson**, authors of the book Making Websites Win]

"Lack of resources."

"Limited budget."

"I am not sure if the business understands the need for this. ROI has to be clear and KPI's [should be] driving improvement."

"Most of the stakeholders have more interest in having new features than investing our efforts into CRO."

Sound familiar to you? It probably does, because these are real quotes from airline pros when I asked them about the challenges of building their airline CRO programs.

So, who better to help you address these challenges than the experts who invented the term "CRO" back in 2007?

This is a true story. Dr. Karl Blanks and Ben Jesson coined and trademarked the term more than 10 years ago and have been Conversion Rate Experts (yep, that's the actual name of their company) ever since.

According to Karl Blanks:

"People still don't understand why CRO is such a good idea. Even some companies who had done it and had loads of success with it, only notice in retrospect what a difference CRO made to the economics of their business."

So, I asked Karl and Ben to help us better understand the value of CRO. Actually, we

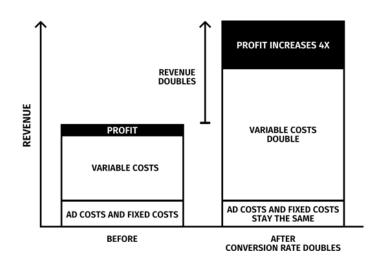
went even further and have provided you with 5 key elements for a successful CRO program. Think of this as a roadmap that connects all areas of the CRO process (explained in detail in the second part of this whitepaper) together:

1. UNDERSTAND THE MAGIC CRO FORMULA - THE POWER LAW OF CRO

The first thing you need to understand is what Karl and Ben call the "Power Law of CRO."

First, by increasing your conversion rate you get more customers with the same advertising budget. So, higher conversion, more revenue.

Second, your profit is even more sensitive to your conversion than your revenue is. Basically, when you double your conversion rate, not all of your costs double.



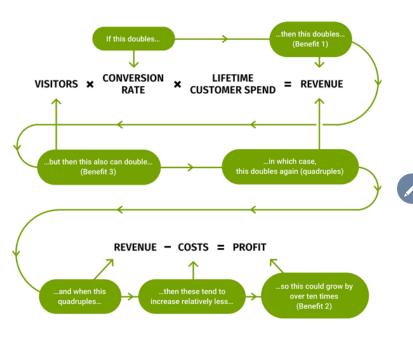
Source: "Making Websites Win", Dr Karl Blanks and Ben



Third, when you increase conversion you open the door to new traffic sources.

Karl Blanks: "It's the fact that when conversion is done right, the unit cost of acquiring the customer decreases. If your conversion rate increases, you can go from not being able to afford paid search traffic to being able to be hugely profitable on it. Once you're profitable on it, then you can afford to buy more, which brings economy of scale."

Last and most important – all the above factors have a multiplicative effect.



Source: "Making Websites Win", Dr Karl Blanks and Ben Jesson

Not bad, huh? Now for the next step: once you truly understand the CRO formula, you need to explain it to your key stakeholders.

2. EXPLAIN THE CRO FORMULA TO THE RIGHT PEOPLE TO GET SUPPORT

Ben and Karl have an interesting person in mind to start your CRO discussion with: your Financial Director.

Karl Blanks: "[The formula] is the most important phenomenon in web design and no one seems to know it. Weirdly, Financial Directors, the FDs, they get it straightaway. They are used to scenario and sensitivity modeling. So, FDs get it straightaway because that is the language they speak. Unfortunately, it's more difficult to explain it to Marketing Directors, more often."

Selling the benefits of CRO should help you get the conversation going, but to get the necessary resources, you'll need to be able to measure the ROI of your CRO program.

Note: Company support and culture are explained in detail in section 8.

3. UNDERSTAND THE KEY METRICS AND MEASURE

Ben Jesson: "The obvious thing to do first is to be clear across the whole organization about the metrics that are important to measure success. It's no good getting a split testing tool if you're not testing the right stuff. Metrics need to be discussed at a senior level. It's a strategic decision; where do we want this business to be in five, ten years' time?

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"Especially large organizations often end up optimizing things like click-through rate, these micro conversions. These might improve the website mildly or might help them get some statistically significant results, but don't really change the business itself."



Note: You can learn in detail about analytics and metrics in section 4 – Analytics.

"The first question we always ask our clients is, what is your vision for your company, where do you see [yourselves] competing in the future, what market are you trying to dominate and what are your real core metrics for your business to be able to measure these goals?

"It really does start with measurements. Once the company has got the idea of what they should be measuring, the next thing is to look at what's working and what isn't – and on the website, that can be pretty simple."



Once you have the metrics and measurement part figured out, you can start with the optimization work.

4. UNDERSTAND YOUR USERS

Ben Jesson: "It's really about understanding your position in the marketplace, why your customers currently use you and why your qualified prospects don't use you."

Now, to understand this you really need to understand how your users think. Sounds obvious, but this is often the most neglected part. We just don't listen to our users enough. Or, as Ben puts it:

"One thing that should be obvious, but it's kind of not, is that most of the web is being built by technical people. But the most successful websites are built with real empathy and understanding of your user situation.

"You're so far from the users when you're designing the webpage or when you're looking at the web analytics reports. Users are not just pixels on a graph, users scrolling through a page. Imagine you have a thousand people queued in front of your door who wanted your product but, for whatever reason couldn't get it. They weren't persuaded by it. You just go and ask them."

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Note: YOU CAN Learn about the CRO activities that will help you understand your users better in section 3.

Ben Jesson: "The breakthroughs we have with our clients is when we immerse ourselves in the users and the users' problems and their experience. It's all about becoming the customer and having the empathy."

The biggest part of the mindset change and the culture change is to become user-centric.

5. CHANGE YOUR MINDSET OR YOU DON'T STAND A CHANCE

Ben Jesson: "One thing that's interesting in an industry like travel, is you kind of have two segments of business. You have the airlines that were created as offline businesses, worked through travel agents and offline marketing. But then you look at the new wave of companies in travel, like Expedia, Google, Booking.com, Airbnb, who are taking the market share. They are just a very different kind of business.

"No one at Google is having to go find a budget to run experiments, or to work on the user experience, or to get data to understand how to improve their website. Traditional companies have this challenge because they don't necessarily have the culture or the expertise inhouse in order to run the experiments, in order to get the data, in order to make the decisions.

"In reality, if you don't have the budget, if you can't persuade the CFO to invest in a better user experience and to invest in tools to help you measure whether a change in the website has improved sales or decreased sales, than you don't stand a chance."

THE NEXT STEP – SCALE UP, RUN MORE EXPERIMENTS, GET MORE WINS

The above steps will get your airline CRO program started. You'll be able to start and run your first experiments and optimizations.

As you'll see in the next section – the survey results – there are airlines who are at the beginning of their CRO maturity cycle. They are still trying to figure out how to get CRO going.

However, there are many airlines who have done this already and now face a whole different set of challenges.

If you are one of them, your challenge is probably around how to run more experiments, how to scale up your CRO program and how to get more wins – basically, how to advance your CRO maturity to the next level.

In answer to these questions, we've provided tips from the experts who run experiments and optimization on a large scale. You can find them in **Section 5 – Testing quantity** (of course, that's in addition to the insights from airline and digital experts in all other sections of this whitepaper).

ABOUT THE SURVEY

ABOUT THE 2019 AIRLINE CONVERSION OPTIMIZATION SURVEY

The Diggintravel 2019 Airline Conversion Optimization Survey is the second survey and benchmark of CRO in the airline industry.

Going into the second year of our evaluation, this survey will provide you with an overview and evolution of this exciting ecommerce discipline. This survey certainly won't be the last as Diggintravel will continue following developments in CRO and airline ecommerce trends.

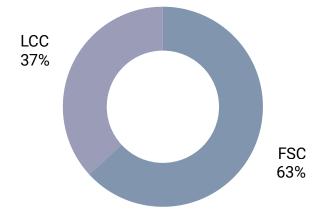
The survey investigates the maturity of CRO processes and key challenges airline professionals face in their conversion optimization efforts.

In the autumn of 2018, we sent our survey questionnaires to more than 110 senior ecommerce, optimization and digital marketing airline executives.

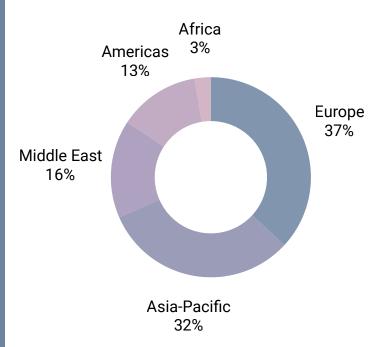
The survey represents the views and insights of 38 carriers (a 35% increase from last year's turnout, where 28 airlines participated). It will provide you an intriguing insight into the state and developments of CRO for the airline industry. BY SIZE

large

32%







CRO MATURITY MODEL

WHAT WERE WE ASKING

The goal of the survey was to evaluate CRO maturity within airline organizations.

We evaluated several CRO maturity models and revised last year's Diggintravel Airline CRO Maturity Model.

For this year's report, we expanded the maturity model with one new area. Because being data-driven and mastering analytics is such a huge part of CRO, we added **digital analytics** as a new area.

The new and revised Diggintravel Airline CRO Maturity Model consists of 8 areas:

- 7 general CRO areas: people, skills, analytics (new area), activities, test quantity, tools, organizational support
- 1 airline-specific area: internet booking engine (IBE)

You can see the exact questions and results for each area in the special section at the end of this report. Each area was ranked from Level 1 (basic) to Level 5 (most advanced).

As a result, the **Airline Conversion Optimization Maturity Model** was created (see next section).

Since personalization is a hot topic and we believe it is closely connected with CRO, we evaluated whether or not airlines combine conversion rate optimization and personalization activities and what kind of personalization engines airlines use.

That's why you'll see a special section on personalization in addition to all maturity model areas in the report.

Additionally, we asked participants about the key challenge that prevents them from taking CRO to the next level.



THE DIGGINTRAVEL AIRLINE CONVERSION OPTIMIZATION MATURITY MODEL

The best airlines know that CRO is not a set of "hacks," that it is not just about A/B testing your landing pages or new features. CRO is a process. It's about building a data-driven culture and organization that supports experimentation.

The goal of the Diggintravel Airline Conversion Optimization Maturity Model is to help airlines evaluate the level of their CRO process in each of the key areas.

The Maturity Model also helps airlines strategically plan the actions needed to advance their CRO process in each area. Progress in most cases is an evolution and step-by-step advancement, and rarely is it a revolution (skipping steps in the maturity process).

Finally, the Maturity Model is a selfassessment tool that allows airlines to realistically assess their real CRO and ecommerce competence. In a lot of cases there is an organizational belief that the company's own ecommerce and CRO competence is at a higher level than it actually is. Only when we perform a systematic evaluation of each area (especially regarding activities in place and quantity of tests) do we usually begin to get a more realistic picture.

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
PEOPLE	Online marketing specialist	Part-time conversion optimization resource	Full-time conversion optimization resource (CRO specialist)	Small CRO Team: web analyst, designer, developer, CRO specialist	Full scale conversion team additional to small team - UX researcher, copywriter, psychologist
CRO SKILLS	Basic online and digital marketing knowledge	Basic conversion optimization knowledge	Deeper knowledge about conversion optimization (CRO, UX, Analytics, Content & Copywriting)	Advanced CRO knowledge (UX excellence, advanced analytics, conversion centered design)	Experts in conversion optimization (UX excellence, advanced analytics, conversion centered design)
CRO ACTIVITIES	Basic traffic and conversion reports; sales reports	Level 1 + advanced traffic and conversion reports, A/B testing	Level 2 + customer feedback and survey analysis, basic segmentation, form analysis	Level 3 + advanced analytics, advanced segmentation, extensive UX research, personalization	Level 4 + multichannel analysis, 1:1 personalization, predictive analytics and optimization
DIGITAL ANALYTICS	Basic web analytics (ex. Google Analytics reports)	Level 1 + advanced web analytics setup (ex. Enhanced E-Commerce for GA, custom goals funnel & reports)	Level 2 + detailed funnel analytics, attribution modelling, cross-device tracking	Level 3 + advanced tools for visualization like Google Data Studio & BigQuery, Tableau, Qlik, Power BI)	Level 4 + data science (predictive analytics, machine Learning with ex. R or Python)
TESTING QUANTITY	None 1-2 tests per quarter	Ad-hoc testing (projects) 1-2 tests per month	Regular and planned testing 2-5 tests per month	Interactive testing 5-10 tests per month	Disciplined testing 10+ tests per month
CRO TOOLS	Web analytics, performance monitoring	Level 1+ A/B testing tools, session recording	Level 2+ Onsite client feedback, form analysis, heat maps	Level 3+ project management tool for optimization, personalization tooling	Level 4+ multichannel analysis, personalization automation, predictive analytics & optimization
INTERNET BOOKING ENGINE	IBE doesn't support A/B testing and experiments	Simple A/B testing and experiments are possible but with workarounds and take long time & effort to implement	Can do basic and semi-complex experiments and A/B tests on ongoing basis	Can do split-path A/B testing, have & test several versions of booking flow at the same time	Completely own and mange booking flow and have no limitations with A/B testing and experiments
ORGANIZATION SUPPORT	None Conversion optimization is recognized on individual level	Head of E-Commerce Conversion optimization is recognized on department level	Director level Conversion optimization is recognized by director or higher management	Top management support Conversion optimization is recognized and supported by VP level executive	Entire organization Conversion optimization is recognized as a crucial activity and has companywide (C-level) support



DO YOU WANT TO TAKE YOUR CRO TO THE NEXT LEVEL?



This special airline CRO workshop is the best first step!

Discover all of the most important aspects of airline conversion optimization (CRO) in a **hands-on**, **1-day workshop**.



Learn – we'll provide you with airline Ecommerce and CRO best practices and benchmarks based on our research.



Plan – we'll evaluate your CRO maturity and help you plan the next steps based on our CRO maturity model. \mathcal{O}

Identify - we'll deep dive into your booking funnel analytics and help you identify key optimization scenarios.



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Execute - we'll help you prepare and execute first optimization scenarios and A/B tests.

CONTACT iztok.franko@diggintravel.com FOR A DRAFT WORKSHOP AGENDA

KEY FINDINGS

FINDINGS SUMMARY – STATE OF AIRLINE CONVERSION OPTIMIZATION

Based on the revised Diggintravel Airline Conversion Maturity Model and the survey results from each area, we classified each participating airline into one of the following four categories:

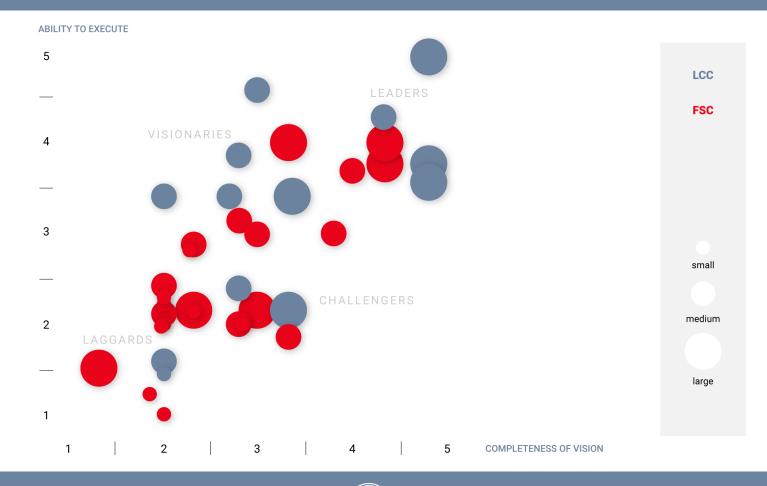
- Laggards
- Challengers
- Visionaries
- Leaders

To show the different stages of maturity in accordance with our research methodology, we used the Gartner Magic Quadrant like visualization and methodology for results presentation and high-level summary. We grouped our seven **maturity model areas** into two major groups:

- Completeness of vision—here we grouped areas that relate to understanding the importance of the CRO process, culture and organization (People, Skills, and Organizational Support).
- Ability to execute—here we grouped areas that relate to the ability to execute a CRO process in practice (Analytics, Activities, Test Quantity, Tools, and Internet Booking Engine).

According to our benchmark, we detected:

- 7 Laggards
- 13 Challengers
- 10 Visionaries
- 8 Leaders



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LAGGARDS

According to our maturity model, Laggards are the airlines that benchmarked the lowest (Level 2 or less on average) across all CRO framework maturity model areas. 7 out of 38 airlines are in this group, and 5 out of those 7 airlines are small sized airlines.

I. People and company support:

These airlines are either just starting out with their CRO process or have not yet recognized CRO as a critical part of their company's growth. For all airlines in this group, CRO is recognized and supported on a department level only (usually the ecommerce department). More than half claim they have problems with explaining CRO to their stakeholders. No airline in this group has a CRO team in place or even a full-time CRO resource. For 4 out of the 7 airlines, conversion optimization is performed by an online marketing specialist with general digital marketing knowledge. The other 3 airlines have a part-time CRO resource.

II. Skills and knowledge:

Most airlines in this group identified lack of resources and knowledge as their biggest challenge when it comes to assigning a fulltime CRO resource or CRO team. Most of them said they have general digital marketing knowledge or basic knowledge about CRO. As you'll see in the "Skills" section, CRO requires a complex and large set of specialized skills. This is a challenge for smaller airlines, where there are typically fewer employees with specialized skillsets compared to larger companies.

III. Activities, tools and analytics:

Most Laggards mostly do web analytics when it comes to CRO activities. Most perform basic web analytics and some have an advanced analytics report setup, but all within their core analytics tool. 5 out of 7 airlines named analytics and performance monitoring as their only CRO tools. In addition, all Laggards state that their internet booking engines (IBEs) are not flexible enough for A/B testing. Only two airlines from this group claimed they do user research and user feedback activities, so user-centricity is definitely a problem for this group.

IV. Testing quantity:

All Laggards surveyed do A/B testing and other forms of experimenting on an ad-hoc project basis only (if done at all). If testing is performed, it's usually done for major website redesigns. Most listed lack of resources as their biggest obstacle to doing A/B testing on a regular basis.

NEXT STEPS FOR LAGGARDS: EDUCATE!

Learn about CRO as much as possible and understand the Power Law of CRO. Go through the five step roadmap we laid out for you in the intro section.

Find and train an internal CRO champion who will put CRO on the map for your company. It's crucial to evangelize, advertise an advocate A/B testing within the ecommerce and digital departments to foster the testing culture. Once education and intra-departmental acceptance is achieved, it will enable the airlines from this group to build a good case for CRO and attain organizational buy-in. At that point, a small, agile CRO team and process can be formed.



CHALLENGERS

We classified as Challengers the airlines that are not Laggards (so their average score is above Level 2), but which are ranked higher in "Ability to Execute" than "Completeness of Vision." 13 airlines fit these parameters, so this is the largest of the four groups.

I. People and company support:

9 out of 13 airlines in this group don't have full-time CRO resources in place, and only 2 airlines claimed they have a CRO team. This means CRO is mostly done on an individual level. CRO specialists perform CRO activities, but CRO is still not a core ecommerce process. Only one airline in this group said that CRO is recognized and supported by top management. Resource constraint is the biggest obstacle stated by this group, preventing them from setting up small optimization teams.

II. Skills and knowledge:

Most airlines (10 out of 13) in this group claimed to have in-depth knowledge of conversion optimization (e.g., CRO, UX, analytics, content and copywriting). However, this knowledge is mostly gathered on an individual level, by CRO enthusiasts within the company.

III. Activities, tools and analytics:

Airlines in this group are more advanced when it comes to activities and tools. Only 2 out of 13 don't do any user research activities. On the other hand, 4 airlines stated they do advanced activities like advanced analytics, advanced segmentation, extensive UX research, and personalization. They are also more mature when it comes to analytics; 4 airlines perform advanced visualization and use specialized visualization tools like Google Data Studio & BigQuery, Tableau, Qlik, and Power BI.

The challenge for this group is that activities are sometimes still done for silo tests and optimizing micro metrics, rather than within a long-term, companywide optimization plan.

IV. Test quantity:

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This group performs A/B tests and experiments at an above-average rate. Only 4 out of 13 airlines don't do testing on a regular basis. There are 4 airlines in this group who do at least 5-10 tests every month.

Challengers need to be careful not to use tests as their main optimization activity, but rather to use them for the validation of hypotheses only.

NEXT STEPS FOR CHALLENGERS: EMPOWER!

Challengers understand the value of CRO but still struggle to get companywide exposure and support. CRO experts and their department managers need to be proactive in explaining the value of CRO to their key stakeholders. Be transparent about experimenting and make case studies out of winning tests with clear ROI calculation. This will help you get the recognition and resources needed to take the next step – form CRO teams and structure activities and tests in a strategic optimization plan.



VISIONARIES

Visionaries is the second largest group in our survey, consisting of 10 airlines. Airlines in this group are not Laggards (so their average score is above Level 2 across all areas), but are ranked higher in "Completeness of Vision" than "Ability to Execute" areas.

I. People and company support:

Visionaries have a clearer understanding of the potential and importance of CRO than Laggards and Challengers. Their average score is above Level 3 across People, Skills and Organizational support areas.

2 airlines in this group have a CRO team in place, and an additional 2 are in the process of building such a team. 40% of airlines in this group claimed to have support for CRO on an executive level (at least Level 4).

II. Skills and knowledge:

All but one airline in this group claimed to have in-depth knowledge of conversion optimization (e.g., CRO, UX, analytics, content and copywriting). 2 airlines stated they even have advanced CRO knowledge (UX excellence, advanced analytics, and conversion-centered design).

III. Activities, tools and analytics:

Visionaries have the means, but don't execute at the same level as Leaders or even Challengers. Therefore, this area and testing quantity is where they lag behind. 40% of airlines in this group still don't do systematic user research and user feedback activities, and 50% don't have the tools for such activities (e.g., onsite client feedback, form analysis, or heat maps).

One area which really limits Visionaries is the Internet Booking Engine. 4 out of 10 said their IBE doesn't support A/B testing and experiments, while the other 6 said simple A/B testing and experiments are possible, but with workarounds, and they take a long time and a lot of effort to implement.

IV. Testing quantity:

Limitations in activities, tools and especially the IBE result in less than optimal execution of A/B testing and experimenting. 80% of airlines in this group still perform A/B tests and experiments on an ad-hoc project basis only.

NEXT STEPS FOR VISIONARIES: ENABLE!

Educate the IT team on the importance of CRO to get the right tools in place. Implement an agile, modular Internet Booking Engine that supports different flows, instances and more complex A/B testing (like split path testing).

Consolidate development to support CRO activities and start building CRO teams (product manager, conversion specialist, analytics specialist, front-end & back- end developers). Start executing more user research activities to really understand your users' pain points. Once the proper tools and team are in place, increasing the number of experiments is a critical next step for this group as it has a direct influence on faster learning and growth.



LEADERS

8 airlines were classified as Leaders. They are the elite CRO group. Airlines in this group are on average at Level 4 or higher across all areas. LCC airlines dominate this group (6 out of 8). There are 2 medium sized airlines in this group, and the rest are large airlines.

It's not a coincidence that big airlines dominate this group. The resources and expertise needed to build a CRO-centric organization can be an issue for smaller airlines.

However, CRO should not solely be the domain of the biggest airlines. Even smaller airlines can advance to a higher level of CRO maturity with a smart and agile CRO strategy. There is one airline in this group that has achieved a high CRO maturity level and high experiment volumes using a unique outsourced approach.

I. People and company support:

CRO has become a part of the culture for these airlines. CRO, testing and experimenting are recognized as crucial processes on an organizational level. All airlines in this group claim CRO has top management support, and half even said conversion optimization is recognized as a crucial activity.



All but one of the Leaders have dedicated CRO teams in place with advanced CRO skills and knowledge. Roles like Conversion Optimization Expert, Senior CRO Specialist, and Data Scientist are common in this group. Almost all of the teams are hybrid: a combination of internal CRO resources and dedicated outsourced experts.

II. Skills and knowledge:

Leaders are pushing their CRO skillset to the next level. They have advanced CRO knowledge (e.g., UX excellence, advanced analytics, and conversion-centered design). Half of this group go even further when it comes to CRO skills (e.g., persuasion techniques, conversion copywriting, advanced user data, BI and datamining).

III. Activities, tools and analytics:

Leaders recognize understanding your users is key. They all perform systematic user research and feedback activities, extensive UX research, advanced analytics, and advanced segmentation. When it comes to advanced analytics, 50% claim they do data science (e.g., predictive analytics, machine learning). They use dedicated tools for CRO and have IBE solutions that allow them to run experiments on an ongoing basis.

IV. Testing quantity:

A true Leader can be recognized by the number of experiments he runs. All airline CRO Leaders test and experiment on a larger scale (at least 5-10 tests per month). The best (50% of this group) do even more: they run 10+ tests every month.



NEXT STEPS FOR LEADERS: SCALE, AUTOMATE, AND FOSTER A CULTURE OF EXPERIMENTATION

Even Leaders can take the next step since CRO is about constant learning and growth. While airline CRO Leaders are the best among airlines, there is still a gap compared to the travel industry experimentation elites like Airbnb, Uber, Booking.com or Skyscanner.

So the real challenge for this group is how to do experimentation on an even larger scale and catch up with the travel elite.

This is why we've provided special interviews and tips from experts who have built largescale experimenting programs. You can find them in the Test Quantity section. And yes, I understand most of the travel elite are companies who provide digital products only and are basically tech companies. However, airlines can apply CRO and experimentation principles to their physical products as well (you can find an interesting suggestion on that in Section 8 of the whitepaper).



THE BEST WAY TO PREDICT THE FUTURE IS TO CREATE IT

Got an idea? For those travel companies who have no shortage of ideas, we are here to collaborate and help you realize your dream. From ideas on a napkin to a working product, we can assist with a full suite of services that will allow your future product to take flight.

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HOW DOES THE STATE OF AIRLINE CRO COMPARE TO OTHER INDUSTRIES?

In the last airline digital workshop I ran, somebody asked me, "Why is the airline industry so unique? I don't see anything so different about it." Obviously, he was new to the industry, but the question still made me think.

We do this yearly airline CRO research to assess the maturity of airlines when it comes to conversion optimization. But is our industry anything special? Are there any differences when it comes to ecommerce and CRO?

So, before going into a detailed analysis of our airline research results, we wanted to see how our airline CRO results compare to other industries. What are the similarities and differences when it comes to experimentation? We compared our results to the **"2018 State of Experimentation Maturity"** report conducted by WiderFunnel and Optimizely. They analyzed 115 experimentation programs among brands like Nike, United Airlines, Showtime, American Express, Hotwire and MailChimp.

The State of Experimentation Maturity 2018 An in-depth look at the experimentation programs of leading North American brands. Although their research was limited to North American companies only, it was focused on websites with high-volume traffic (similarly, airlines run websites with large amounts of traffic). The methodologies of the two sets of research differ; however, some trends and comparisons can be made to provide you with an experimentation comparison from other industries.

Here are the 3 main insights of our Airline CRO survey, compared to the results of the "2018 State of Experimentation Maturity" (if you'd like to see the full research results, you can find the link in the references section):

INSIGHT NO.1: EXPERIMENTATION AND CRO ARE GAINING MOMENTUM.

One of the key insights from the WiderFunnel research is that experimentation is gaining momentum. Most companies they surveyed (52% of small and medium businesses and 64% of large enterprises) plan to increase the number of experiments in the next 12 months.

We see similar trends in our research when it comes to experimenting. As I mentioned in the intro, we saw many new airline conversion optimization roles appearing this year. Our research confirmed this trend, as only 18% of airlines were identified as Laggards (airlines at the beginning of their CRO journey), compared to 50% last year.



Furthermore, this year's research shows that there are more airlines that run experiments on a regular basis. This year, 50% of airlines said they run regular experiments (2-5 tests per month or more), while last year only 32% airlines did so – which brings us to the next insight.

INSIGHT NO.2: EXPERIMENT QUANTITY IS STILL A PROBLEM, ESPECIALLY FOR SMALL AND MEDIUM SIZED COMPANIES.

According to the WiderFunnel research, 47% of small and medium enterprises perform a low quantity of experiments (less than 20 per year), while 39% of large enterprises reported the same quantity. So, there is still a large share of companies that don't run tests regularly, or run them at a very low volume.



Although the number of airlines who run tests regularly increased this year (see previous insight), we still noticed a similar trend in our survey. 50% of airlines only run experiments on an ad-hoc basis (or don't do them at all). Test quantity is especially problematic for small airlines, as all 10 of the small airlines surveyed are in this group. On the other hand, 31% of medium airlines and 66% of large airlines do experiments on a big scale (at least 5-10 tests per month).

You can read more about experimentation in the special Test Quantity section.

INSIGHT NO.3: AIRLINES LAG BEHIND WHEN IT COMES TO DEDICATED OPTIMIZATION TEAMS.

The WiderFunnel research shows that 48% of small and medium enterprises and 76% of large ones have dedicated optimization teams.

Only 29% of airlines from our survey said they have a dedicated CRO team in place. Other airlines either have a full-time or a part-time CRO resource or a general marketing specialist running optimization activities. Dedicated airline optimization teams are still mostly the domain of large airlines (66% said they have them), while only 19% of medium airlines and no small airlines have them. Lack of budget and resources is the most common obstacle stated by airlines.



Read more about how to build a CRO team in Section 1 – People.

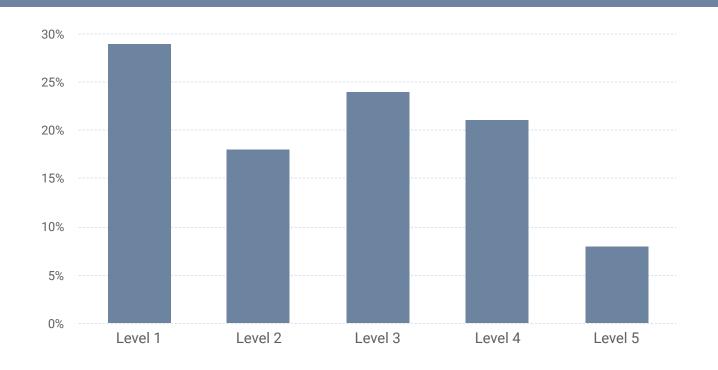
AIRLINE CRO RESEARCH 2019

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PEOPLE

Q: WHO DOES CONVERSION RATE OPTIMIZATION (CRO) TASKS IN YOUR ORGANIZATION?

- Level 1: Online marketing specialist
- Level 2: Part-time conversion optimization resource
- Level 3: Full-time conversion optimization resource (CRO specialist)
- Level 4: Small conversion optimization team (web analyst, designer, developer, CRO specialist)
- Level 5: Full scale conversion team (in addition to small team UX researcher, copywriter, psychologist)



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2019 Airline Conversion Optimization Survey

KEY STAT: A DEDICATED CRO TEAM IS THE NEXT STEP, TAKEN MOSTLY BY THE LEADERS

Only **29%** of airlines have a dedicated CRO team in place. Dedicated CRO teams are still mostly a "luxury" found among airline CRO leaders (all but one of the Leaders in our survey have them, and one has it outsourced). On the other hand, only 13% of the airlines not classified as Leaders have CRO teams in place. When it comes to CRO teams, there is a big difference between LCC airlines (42% of them have a dedicated team) and FSC carriers (only 21% have a dedicated CRO team).

There is still a significant share (29%) of airlines that still don't have a specialized CRO resource in place. The majority (42%) of the airlines surveyed have a part- or full-time CRO specialist managing their optimization activities.

Having at least one dedicated CRO person is the first critical step airlines need to take if they want to build an optimization program.





Most airlines that don't have one yet claim lack of resources as the key obstacle to implementing a full-time CRO person. We explained how to get support from your key stakeholders around this issue in our preface interview – "How to Get Exposure and Put Your CRO Program on the Map."

Once you have a designated CRO Lead inhouse, you need to think about the next step – building CRO processes and a CRO team. Most airlines start with an internal CRO Lead and a specialized agency to help them with CRO activities (like analytics, user research, and A/B testing).

You can find the typical profile and required skillset for a CRO Lead in Section 2 – Skills and Knowledge.

In addition, we've provided tips from Google on how to set up your organization with a CRO agency or in-house CRO team in our Ask the Expert part of this section.



KFY TREND AND WHAT'S NEW IN 2019

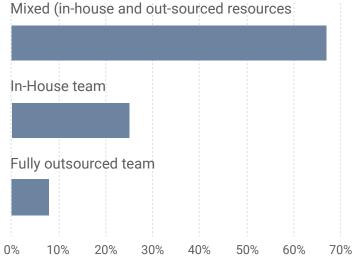


By comparing the results for 2019 with last year's results, you can see that the main shift happened with airlines moving from Level 1 to Levels 2 and 3. This means more airlines are recognizing CRO and the importance of having a specialized CRO resource. In last year's survey, 46% of airlines had an online marketing specialist in charge of optimization (i.e., no specialized CRO resource); this share dropped to 29% this year.



This is the good trend from our results. The bad trend is there was no major shift in the share of airlines with dedicated CRO teams (Level 4 and Level 5). This share improved just slightly, from 29% last year to 36% this year.

67% of the airlines who claimed to have dedicated CRO teams said their team is a combination of in-house and outsourced resources. 25% of airlines said they have an in-house CRO team, and only 8% have a fully outsourced team.



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ASK THE EXPERT: GOOGLE'S TIPS FOR CRO ORGANIZATION

If you're just starting out with your airline CRO program, you'll need to decide how to organize your team. Here are tips from Google for both options: an in-house team or using a CRO agency as your outsourced team.

Remember, even if you go for the outsourced option, you'll still need a CRO Lead. You need to have a person who fully understands CRO and is good at working with internal stakeholders and coordinating your external CRO team.

We often forget that getting internal buy-in for experiments and optimization is the first and most crucial step for any optimization activities.

When it comes to internal persuasion, Dr. Karl Blanks has interesting advice regarding what to look for in your CRO program leader: "He needs to know persuasion on two levels. One is actually persuading the visitors to become customers and the other is persuading within the organization that this [CRO] is worthwhile. So we always say, yes, it's important for every webpage to have a compelling, persuasive headline; that is what the user wants. But then don't forget that you don't just switch those skills off when you come to announcing to the team or to the management what you've achieved."

"The persuasion and the championing of it within the organization is of great importance. Knowing enough about the business to be able to show it in terms of a cost-benefit analysis. Also in terms of mitigating the risk by showing that we're running this test and if it gets an improvement of 20%, here's what it'll be worth, and if it loses then here's what it'll cost us and the likelihoods.

"So I'd say lots of the skill there is knowing [and] identifying who in the organization makes decisions, who in the organization can get things done. In the same way that we do when we look at a website, we're looking at the flows of visitors through different pages and try and look for where the bottlenecks are."

How to set up the organization

Vorking with CRO and A/B tests requires different skill sets coming together. This is what you need to have in place, either through an agency or inhouse.

With a CRO agency

A CRO agency can help you get started with CRO, do the complete process or only help with specific tasks like A/B tests.

If you want to split the tasks between inhouse and agency, these are the questions you should ask (if you want to quality check the agency, ask for examples of previous work within these areas):

- Who will do the quantitative and qualitative research needed?
- Who will do the evaluation of the website and build hypothesis? What frameworks will the person use?
- Who will do the A/B tests, with processes for QA (quality assurance)?

If you work with an agency, we recommend that you have a conversion rate optimization lead inhouse who can manage the project. Never outsource what you're not an expert on.

Inhouse

If you want to set up the CRO process inhouse, this is what you'll need:

- A Conversion Manager experienced in how to increase mobile conversions, do A/B tests, evaluate the website according to CRO frameworks, organize insights from quantitative and qualitative research and communicate with the organization.
- Time from a data analyst working with analytics in e.g. Google Analytics, to do quantitative research.
- Time from a frontend developer experienced within mobile design, to do design changes and give code snippets for A/B tests.

Before getting started, choose and implement an A/B testing tool.





EXAMPLE: TRANSAVIA —AN AGILE COMMERCIAL ORGANIZATION

Transavia is a great example of an airline that has organized its commercial department in an agile way, which is needed for effective optimization. You can see in the examples below how their CRO Fleet supports all of Transavia's main bases, and also how their CRO team is set up.

In Section 4 – Digital Analytics you can learn more about their Data Fleet and how data science supports CRO activities.

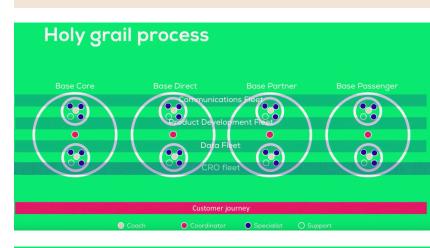
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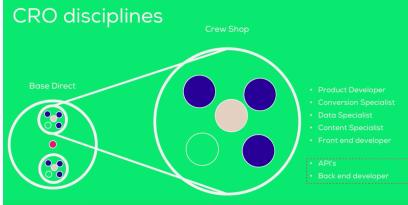
From January 2017, Transavia's Commerce Department has changed from a traditional, functionally managed department into a role-based, agile organization. The department is broadly divided into 4 so-called Bases, where within classical (management) functions have disappeared and replaced by roles. The Bases are led by Base leads (the former VPs and Directors), and smaller teams (Crews) within the Bases who are led by coaches.

The Base Direct Sales is one of the four Bases within the commercial department. This Base is responsible for direct B2C sales and consists of two teams (Crews): Team Acquisition and Team Shop.

Team Acquisition consists of campaign and content-oriented specialists and has two main goals. The first is to reach the target group with the Transavia brand in order to achieve a strong brand preference. For this, brand campaigns are created & executed, and branded content is also developed to create Transavia ambassadors. The second goal is converting orienting consumers into website visitors via structural (search & display advertising) and tactical campaigns.

Team Shop aims to convert website visitors to booking customers. For this purpose, their behavior on the website (and other online channels) is analyzed and conversion optimization activities (such as A / B testing) are carried out. This team is continuously improving the performance of the direct channels in order to realize an optimal customer experience. The mobile channel is becoming increasingly important here.





ASK THE EXPERT: HOW TO ORGANIZE A HYBRID AIRLINE GROWTH AND OPTIMIZATION TEAM?



Emre Güney

Senior Growth Manager at Skyscanner, previously Head of Digital Product & Growth Marketing at Pegasus Airlines

How was your growth team at Pegasus organized?

"We called our team a Growth team, so it was not only conversion optimization. We wanted to own the whole customer journey, from anonymous user to the loyal user through our digital products. We were six people but we also had some very valuable partners that we outsourced to some of our growth activities. Six people is not enough to run your growth activities for 40 markets that you fly to.

So we had to get help from external partners. I say partners, because we didn't have classic agency – client relationship. We had a combined, hybrid team that worked in sprints as a unified team for the same goal."

Who was on the Pegasus internal team?

"Pegasus internal team was organized in an AARRR funnel model. Two people for leading the acquisition growth activities, like paid and unpaid. Just bottom of the acquisition funnel, because we had a separate brand team as well. Then we had two people focusing on product and activation, but also retention as well. And lastly, we had a Conversion Rate Optimization Specialist who was leading the whole experimentation process. He was doing that on every level – not only activation, on the website, but also helping people from acquisition to design the experiments, run the experiments, analyze the experiment results and share the results with all the stakeholders.So including me these six people were running the whole digital growth cycle."



You had an internal core team and then an external team that you outsourced some activities to. What kind of activities did your outsourced partner do?

"We worked closely with an external partner for more than six years. They had two teams; one team was working on the performance acquisition and the other on establishing infrastructure of measurement. This second team also did digital analytics and developed experiments. That team was a crossfunctional team with designers, developers and they were running the experiments with the guidance of our CRO specialist. They were also analyzing and sharing the results of the experiments with us." "So, we got one internal person for conversion optimization, but with that dedicated external team we had a team of six people in an optimization team just focusing on CRO."

Would you say that this kind of hybrid setup allows mid-sized airlines to run experiments faster?

"Yes, I do believe so. Of course, the main goal would be to have everything in-house and building experiments within your organization. But to move there it takes time, because it's not only about scaling up people and the necessary tools. The most important thing is the invisible part of the iceberg – the culture. With the help of the external partner, it was easier and faster to build this experimentation culture and deliver results."

"It's like going to the gym. When you do your first experiment, you have the same feeling like after the first day at the gym. Every muscle aches. So in order to build your momentum, your experimentation velocity and learning speed, it can be beneficial for airlines to work with external CRO partners. However, it needs to be as a hybrid – there is a culture within it as well. It can't be like "do this and report back to me" model. You need to learn together."

As you can see, the cultural aspect (or as Emre puts it, the invisible part of the iceberg) is a critical part of running a successful CRO program. You can learn more about what it takes to develop a culture of experimentation in **Section 8 – Organizational Support**.



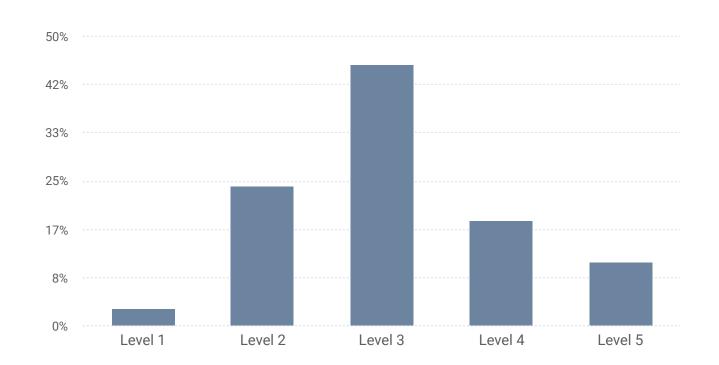


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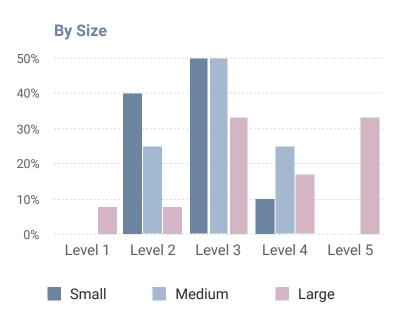
SKILLS AND KNOWLEDGE

Q: WHAT IS THE CURRENT LEVEL OF CONVERSION OPTIMIZATION SKILLS IN YOUR ORGANIZATION?

- Level 1: Basic online and digital marketing knowledge
- Level 2: Basic conversion optimization knowledge
- Level 3: Deeper knowledge about conversion optimisation (CRO, UX, analytics, content & copywriting)
- Level 4: Advanced CRO knowledge (UX excellence, advanced analytics, conversion centred design)
- Level 5: Experts in conversion optimization (persuasion techniques, conversion copywriting, advanced user data, BI and datamining)



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KEY STAT: BASIC CRO SKILLS ARE NOT "UNKNOWN" ANYMORE; THE NEXT STEP IS CRO EXPERTISE

74% of airlines claim to have specialized CRO skills within their organizations. Only 26% said they have basic online marketing knowledge or basic conversion optimization knowledge.

It seems most airlines understand that CRO skills are a must to optimize their website's usability in an ongoing and systematic way. However, working on usability is just the first step – the foundation. Usability is all about making sure your users can complete all tasks (on all devices) and don't struggle with your booking process. The next step is making your website persuasive. We're talking about really understanding your users (by doing advanced analytics and user research), mastering persuasion techniques, and integrating them into your copywriting and UX design.

Only **29%** of airlines claimed to have such skills in their CRO teams. It seems such advanced CRO skills are mostly the domain of LCC and large airlines: 50% of large airlines, 25% of medium airlines, and only 10% of small airlines claimed to have advanced CRO skills.



KEY TREND AND WHAT'S NEW IN 2019



By comparing the results of this year's survey with last year's survey, you can see that the major change was the move from Level 1 and Level 2 skills to Level 3 CRO skills.

In last year's survey, the majority of the airlines claimed to have only basic online and digital marketing skills and knowledge. In this year's survey, the majority claimed to have specialized CRO skills.

This is certainly a positive trend; however, there is one caveat. As you could see in the prior section (People), CRO is still done on individual level within airlines. Consequently, CRO knowledge is for most airlines still concentrated among CRO experts and enthusiasts. On the other hand, there was no big change in the percentage of airlines that have dedicated CRO teams and advanced CRO skills – that is, there was no big change in the number of airlines at Level 4 and Level 5 compared to last year.

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ASK THE EXPERT: WHAT IS A PROFILE OF A GREAT CRO EXPERT?



Ben Jesson CEO & Founder of Conversion Rate Experts



Dr Karl Blanks CTO & Founder of Conversion Rate Experts

Finding great CRO people is extremely hard because an effective CRO leader needs to have a very wide skillset with a unique combination of entrepreneurship, psychology and engineering.

I asked Ben and Karl how they would describe a great CRO profile based on their more than 10 years of experience in optimization. Below are the key areas they identified:

ENTREPRENEURIAL, GROWTH MINDSET

Ben Jessen:

"It's a very entrepreneurial skill, a multidisciplinary skill, but in the same way that being a company founder or CEO is. It's being good at lots of things but understanding and appreciating the importance of them."

MASTERING DIRECT MARKETING, SALES AND PERSUASION

Ben Jessen:

"You need to know about direct response marketing and about persuasion. To sell it's to create your website, like a robot salesperson that says the right things at the right time to the right people automatically. Sales and persuasion is critical. Also, you need people with good understanding of user experience, of creating usable, not just pages, but usable workflows."

ENGINEERING MIND

Ben Jessen:

"It's a technical discipline. There's A/B testing, there is web analytics, there is creating the pages themselves. So it's a tough gig because you need to appreciate these disciplines and you also need to be an experienced practitioner in these disciplines."

HAVING EMPATHY TO UNDERSTAND YOUR USERS

Ben Jessen:

"One thing that should be obvious but it's kind of not is that most of the web has been built by I guess technical people or people from a technical background.



But the most successful websites are built with a real empathy and understanding of the user's situation.

You are so far from your users when you are designing a web page in WordPress, for example, or when you're looking at a web analytics report. I'd say the big mistake that almost everyone makes – and we've all been through these watershed moments where we think, hang on a minute, these aren't just pixels on a graph, these aren't just users scrolling through a page."

ALWAYS LEARNING – BE LIKE A SPONGE

Karl Blanks:

"They always tend to be like sponges, people who just constantly learn and acquire. I think everyone who we know who's great at it, is constantly learning [and] interested in everything."

"Good on the science and engineering side because engineering is building things that work and this is building something that works, but also you're not so much building things out of HTML; you're actually kind of building things out of thoughts and ideas. It's working on the users, it's a psychological thing, so in some ways it's the engineering side of buildings things that work, but on the other side it's the field of human interaction."

"I think the entrepreneurial part and the sponge part, the learning part, are two themes that you wouldn't usually expect when you ask about them, but [they] come together most of the time. Because it's really [about] understanding the whole picture."

WHEN YOU MASTER CRO, IT'S LIKE A SUPERPOWER

Seems almost like mission impossible, right?

Yes, it's extremely hard to become an effective CRO expert. The combination of skills is unique and can be very difficult to teach. A lot of our survey respondents said they have a hard time finding the right people and they try to fill the gaps with external, outsourced partners.

However, if you manage to grow a CRO team and find a great CRO leader, the reward will be great – or, as Ben would put it, it will almost give you superpowers:

Ben Jessen:

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"When you pull them all together, you create a superpower which not many people have and not many companies have. When you can pull these things together as an individual person you can then go in [and] literally double and triple businesses in a matter of months or years."



EXAMPLES: OF CRO SKILLS IN ACTION

Here is an example of a CRO Specialist job description for **TUI Nordic**. You can see how they perceive CRO as a combination of technical skills (analytics, A/B testing, understanding front-end development), understanding user behavior, and an entrepreneurial mindset (innovative and having experimental drive). In addition, you can see how their optimization team is structured: UX & Design team, product owner, analytics, CRO specialist.

Here's another example of a CRO role and expected skillset, this time from Wizz Air. You can see they have similar skills requirements; however, they're using an outsourced model. The role of the CRO manager in this case is to coordinate and execute Wizz Air's testing and experimentation roadmap together with the external CRO team and design agency.

CRO Specialist

At A Glance

Everything starts with the customers and their perceptions of us and what we do. Discover your smille! That is our promise! TUI Nordic has won "the best travel site" in Sweden three years in a row and best site overall in 2017. Together with a high custom service and exceptional products we are happy to be driving the holday and travel industry forward in to the next generation.

meet new market demands and customer behaviors. As a part in our quest to make the best digital holiday shop for our customers we are now expanding our Conversion Rate Optimizing team. consumer centric business, we at TUI Nordic are continuously developing and improving our way of working to

What You Will Be Doing

As CRO Specialist you will be a key player in the test focused CRO-team that is responsible for optimization and experimenting of our digital interfaces, mainly on our four Nordic e-commerce sites. You will be working with the whole A/B-testing process in a very cross-functional environment, including the UX & design team, our product owners, the analytics team, about 5 web teams and our sales teams across all Nordic markets. Your role will be about syncing all teams and stakeholders needed to execute a test. You will make the decision of which technical solution is better for the hypothesis to be built in. And you will understand how it can be analyzed, communicated and implemented.

What We Are Looking For

You are the person who loves A/B-testing, optimizing everything in your life and wants to spread that around the entire organization! You feel that this is the perfect opportunity for you - working with a team that is growing as we speak - soon consistent of 7 game players who all love CRO, and within an organization who fully understands the value of testing, learning and within our different of the second s failing fast!

- We also think these things are important;
- 1-2 years of experience with A/B-testing Some knowledge of front-end development
- · Basic knowledge of web analytics (qualitative & quantitative) A need to understand user behaviour
- Problem solver
- Innovative and experimental drive
- Comfortable speaking and writing English

Does it sound like you? Take the chance and work with fun and inspiring products at one of the leading travel suppliers in the

Customer Conversion Manager (CRO/UX)

Location: Budapest Job Code: CCM2018

Description

Customer Conversion Manager (CRO/UX)

(based in Budapest)

We are looking for a top-performing GROWTH-master to join one of Europe's fastest growing airlines. You will own the conversion optimization roadmap for Wizz Air including creating data-driven hypotheses and deploying well-structured developments and tests to improve Web/App conversion and user experience. You will liaise with many different internal/external teams to deliver better experiences for millions of passengers in Europe and beyond.

Key responsibilities will include:

- · Monitor Web/App sales performance and customer journeys to develop insights for growth
- . Lead new feature/product developments in the booking flow on Web/App
- · Supervise the delivery of Wizz Air's testing/experimentation roadmap to drive Web/App conversion
- · Supervise the delivery of in-depth reporting of and monitoring of current and past tests · Work across the commercial team to gather insights and coordinate cross-functionally to
- prioritize highest impact initiatives Coordinate the work of the external CRO-team, reviewing the testing projects
- · Coordinate the Design agency
- · Working with IT resources to implement the requested changes
- · Make sure that the infrastructure and tools are available, initiating and coordinating purchasing processes, getting approval on the costs
- · Cost estimation and invoice approval



✓ Apply online

NORH000123

JOB NUMBER

LOCATION Stockholm

CONTRACT Permanent

CLOSING DATE

05-Dec-2018

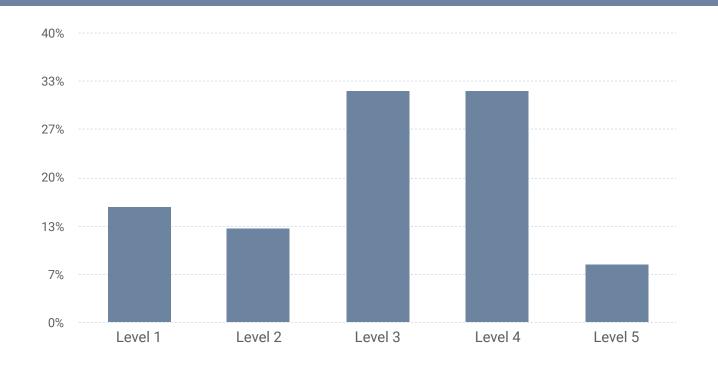
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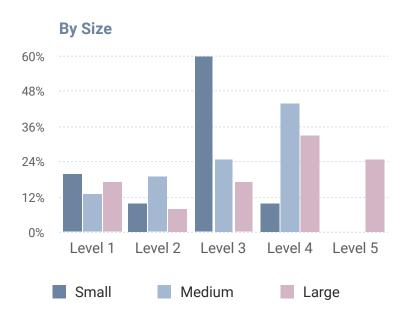
ACTIVITIES

Q: WHAT CONVERSION OPTIMIZATION (CRO) ACTIVITIES DO YOU CURRENTLY DO?

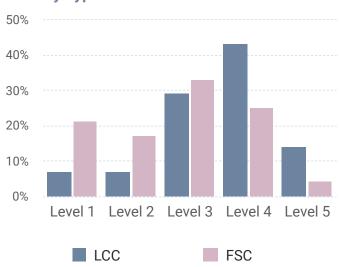
- Level 1: Basic traffic and conversion reports; sales reports
- Level 2: Level 1 + advanced traffic and conversion reports, A/B testing
- Level 3: Level 2 + customer feedback and survey analysis, basic segmentation, form analysis
- Level 4: Level 3 + advanced analytics, advanced segmentation, extensive UX research, personalization
- Level 5: Level 4 + multichannel analysis, 1:1 personalization, predictive analytics and optimization



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Ву Туре



KEY STAT: WHEN IT COMES TO DIGITAL USERS, LOW COST AIRLINES ARE MUCH MORE USER-CENTRIC

29% of the airlines from our survey still don't do any user research activities, and their CRO activities are focused solely on analytics and reports.

On the other hand, **40%** of airlines perform advanced CRO activities such as advanced analytics, advanced segmentation, extensive UX research, and personalization. The group in the middle, 32% of airlines, is carrying out at least basic CRO and user research activities.

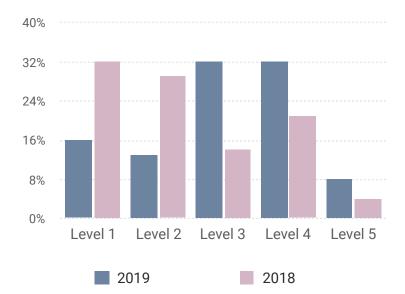
Only 14% of LCC airlines don't do systematic CRO and user research activities (Level 1 or 2), while this share is much higher for FSC carriers, at 38%.

Remember, CRO is all about understanding your users, continuous learning and optimization. The more activities you do and the deeper you go, the faster you'll learn. In the long run this will result in a better user experience and higher conversion.

This especially holds true for all UX and user research activities where the main goal is to understand your users better. True CRO is not about A/B tests, hacks and quick wins. It's about understanding your users and their pain points and optimizing their experience using a factual and data-driven approach (analytics, experimentation, personalization).

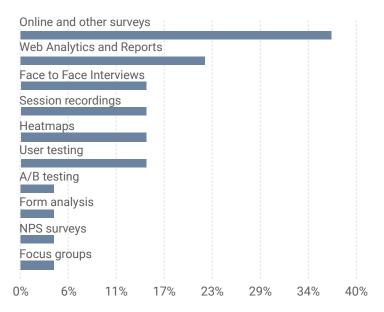
We'll cover analytics, testing and personalization in detail in Sections 4, 5 and 9, so this section will focus on UX and user research.

KEY TREND AND WHAT'S NEW IN 2019



The current trend for CRO activities is similar to what we've seen in prior CRO areas. You can see that the major change this year was the move from Level 1 and Level 2 activities to Level 3 and Level 4 CRO activities. In last year's survey, 61% of the airlines were at Level 1 or 2, while this year this share is only 29%.

Lack of human resources, experience and skills is the main reason stated by the airlines who don't do UX and user research systematically. These are the most popular UX and user research activities for the airlines that do perform these activities on a regular basis:



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ASK THE EXPERT: HOW IS RYANAIR DOING USER RESEARCH AND USABILITY TESTING ON A LARGE SCALE?



Rui Pereira, Head of Ryanair UX Research & Usability

What is your role at Ryanair?

"My role as Head of Ryanair UX Research & Usability is divided into two different streams: Product and Strategy.

Regarding the Product stream, we manage a team of product designers when there is a need to conduct research. At Ryanair we empower designers to conduct research whenever necessary, due to the structure of the Digital Experience team – PODs (1 UX, 1 UI, 1 Product Owner and 1 Business Analyst).

Every time there is a need for one of these PODs to conduct research, the UX Research team is the one that provides assistance. We create the research brief with the methodologies that best suit their needs. However, the designers are the ones that actually conduct the research. Our role is to ensure that the end product is fit for purpose vs. identified business and user objectives.

Ryanair is a very fast-paced company, and this structure is the one that provides us the best results. It frees the UX Research team to work on the "hot topics" for the business, but always overseeing activities relating to user, business research and validation strategies." "Regarding the Strategy stream, my team clarifies product direction through the use of research and other tools and techniques to inform product strategy and execution. We are subject matter experts on product strategy for the design and digital teams based on competition and research."



How is your team integrated into the overall product and ecommerce process?

"UX Research sits under the Product Design team, which sits under the Digital Experience team. Under the Digital Experience team also sits the Ecommerce team, Product team, CRM and the Personalization & Optimization team.

We work in PODs and UX Research works across all PODs. Luckily, research is something very established here at Ryanair.

Our designers and other stakeholders see the value of it and are very conscious that it is something that is part of the process. For example, everything is tested on the UX stage and UI stage as well."



"My team is very lucky because Ryanair understands the value of research in the whole design process. We know that this doesn't happen very often in other companies."

What UX research activities do you do?

"We use a wide variety of methodologies, but it all depends on what the objectives are. Here at Ryanair we typically do: User Testing, Contextual Inquiries, Job to be Done, Interviews, Competitor Reviews, Benchmarking, Surveys, Intercepts, Polls, Shadowing, Diary Studies, Card Sorting."

You use specialized user testing service provider solutions to do user testing at scale, and fast. How many user tests do you run?

"All our designers (20) and researchers (2) test everything on both the UX and UI stage, so you can imagine that the number of tests per month is very big."

Approach to UX Design

2. DESIGN 2. DESIGN 3. PROTOTYPE 5. DEVELOP & LAUNCH

How does such UX research and usability testing fit into the rapid, agile development cycle at Ryanair Labs?

"That's the whole reason why we go with remote unmoderated tests with usertesting.com. We couldn't do it any other way due to the fast-paced environment that we live in here at Ryanair. We need quick turnaround times, and we don't have the luxury to wait days for the result. However, we are also conscious that there are cons to doing remote unmoderated tests vs. face to face. After weighing the pros and cons, we think we got to a good compromise."

If you do so many user tests, how do you analyze the results at such a scale?

"That's why we empowered designers to conduct these tests. This way we can do more user tests at the same time and reduce the analysis time vs. if my team had to do it all."

1. Research

- Analytics review
- Competitor analysis
- User research:
- User testing
 - Interviews / focus groups

RYANAIR

- Empathy map
- 2. Design

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- Personas
- Brainstorm
- Workshops
- Sketching
- Wireframe
- 3. Prototype
 - Low fidelity prototype (paper and InVision)
 - High fidelity prototype (HTML Prototype)
- 4. User Testing
 - Usability test tasks
 - Remote user testing
 User test and iterate
- Oser test and itera
 5. Develop & launch
 - Ul style guide
 - Development
 - User Acceptance Testing (UAT)
 - Launch and reporting
 - A/B testing and iterate

ASK THE EXPERT: HOW DO YOU DO A LAB TESTING SESSION?



Martyn Reding, Head of UX and Optimization at Virgin Atlantic

What is the best way for understanding your users, getting into your users' minds?

"Hm, that's a good question. We've got a lot of different methods and ways. Lab testing is continuously amazing to me. I can't even count how many hours I spent in a lab watching a good UX researcher interviewing people and trying out prototypes. Every single time I've done any kind of lab test I found that valuable. Remote testing, split testing, they're all useful too, but lab testing for me personally just blows my mind every single time."

What is your recommendation for ensuring a good lab test?

"[A] good UX researcher will help with it, but it's not generally the thing that people say; the more important thing is what people do. A friend of mine always says that the difference between good and bad research is the difference between declared preference and an observed preference – a declared preference being "I will see this and I will click on this" versus you just leave them and watch what they'll do." If you've ever performed any type of user testing, you know that getting people to act naturally in a testing environment is difficult. So, what is the best way to do that?

"I think when you boil all the different methodologies down, creating the environment that is as close to an actual environment as possible and then just watching people. Give them a basic task and allow them to work their way through. And be very quick to observe them. When do they take their hands off the keyboard? When do they put the phone down? Where do they lurk, how do they sit? When do they sit back and fold their arms? When do they lean forward? I've never formally studied behavioral science, but I find that just so much more insightful. Designing towards that behavior is I think the most valuable."



Finally, as this is an airline CRO whitepaper: how do you think user research and CRO are connected?

"To me it doesn't make sense to separate it. I've been in organizations before where you have one set of people who create and deliver something and you have another set of people, completely separate, who try and apply CRO techniques on top of it, and I don't think it works.

You'll end up with people who created something, who have been misunderstood maybe along the way. Then you have a group of people who are at the receiving end, people who do the CRO and can't understand why it was done like that in the first place. They are frustrated as there is only so much they can do. So, for me the combination of user experience and optimization is very important." "I wouldn't expect a researcher or a product designer to use Adobe Test and Target to run a multivariate test. There should be two different people doing this thing, but they should be working together on the same team, on the same roadmap, in the same sprint plans."



THE BEST WAY TO PREDICT THE FLORE FUTURE IS TO CREATE IT

Got an idea? For those travel companies who have no shortage of ideas, we are here to collaborate and help you realize your dream. From ideas on a napkin to a working product, we can assist with a full suite of services that will allow your future product to take flight.

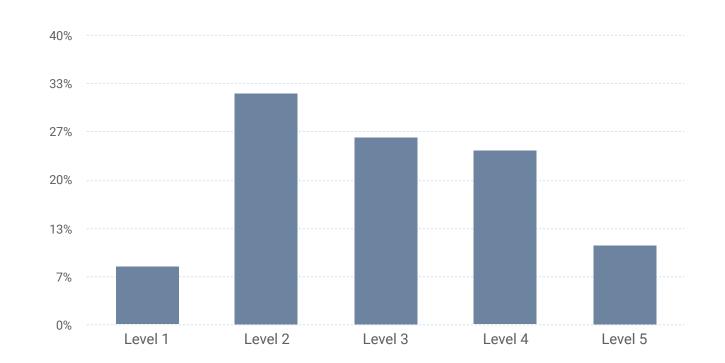


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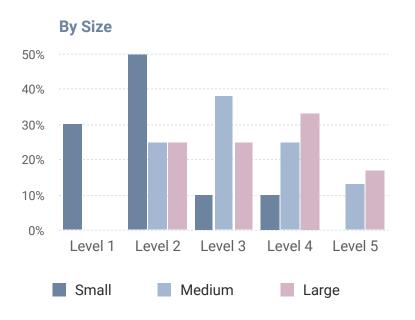
DIGITAL ANALYTICS

Q: WHAT KIND OF WEB & CRO ANALYTICS DO YOU DO?

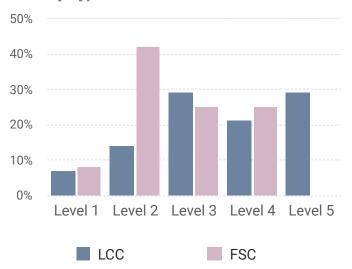
- Level 1: Basic web analytics (e.g. Google Analytics reports)
- Level 2: Level 1 + advanced web analytics setup (e.g. Enhanced Ecommerce for GA, custom goals funnel & reports)
- Level 3: Level 2 + detailed funnel analytics, attribution modeling, cross-device tracking
- Level 4: Level 3 + advanced tools for visualization like Google Data Studio & BigQuery, Tableau, Qlik, Power BI
- Level 5: Level 4 + data science (predictive analytics, machine learning with R or Python)



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Ву Туре



KEY STAT: 2 OUT OF 3 AIRLINES COULD IMPROVE THEIR DIGITAL ANALYTICS WITHOUT HUGE DATA SCIENCE PROJECTS

66% of airlines from our survey only use their web analytics tool for their digital and CRO analytics (see the next section for the most popular web analytics platforms). This is especially true for smaller airlines, as 80% use only their web analytics platform for their digital analytics activities.

It's true that you can perform a lot of CRO reports and analysis with analytics platforms like Google Analytics and Adobe Analytics. However, they have their limitations when it comes to visualization and identifying trends.

24% of airlines use advanced tools for visualization of their web analytics data and to identify conversion trends. As per our experience with Diggintravel clients, this can really take your analytics and consequently conversion optimization to the next level.

Basic web analytics reports Advanced web analytics reports (ex. Enhanced e-Commerce, detailed funnel analytics and reports, attribution modeling)

techniques & visualization (ex. Using advanced tools for visualization like Google Data Studio ed & BigQuery, Tableau, g Qlik, Power BI)

Advanced

Data science & predictive analytics (predictive analytics,

ex. R or Python)

machine learning with

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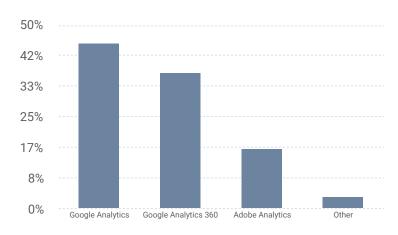
Digital Analytics (for CRO) Maturity

You can find more about how to do this in the special Ask the Expert section - "Why using agile BI and visualization could be the next step in your digital analytics maturity process." The most advanced airlines are exploring data science and artificial intelligence to support their conversion optimization activities. This is the last step in digital analytics maturity for true CRO Leaders. **11%** of airlines are in this group, and all of them are LCCs. You can find examples of airline data science roles and a case study at the end of this section.

KEY TREND AND WHAT'S NEW IN 2019

Since Digital Analytics is a new area in the Diggintravel Airline CRO Maturity Model, we can't provide a comparison to the previous Airline CRO survey results.

Instead, we can provide you with the most popular digital analytics platform among airline CRO experts. As you can see from the chart below, **Google Analytics** is the most used tool when it comes to digital analytics. It's followed by its enterprise version – **Google Analytics 360** – in second place, and **Adobe Analytics** in third place. There are also airlines (mostly large airlines) who use both Google and Adobe platforms and some other specialized solutions (e.g., for mobile).



ASK THE EXPERT: WHY USING AGILE BI AND VISUALIZATION COULD BE THE NEXT STEP IN YOUR DIGITAL ANALYTICS MATURITY PROCESS?



Boštjan Kožuh, Data expert and partner for digital analytics at diggintravel.com

Boštjan, what do you believe airlines are doing wrong when it comes to digital analytics?

"Currently data science and artificial intelligence are the buzzwords of the airline industry. It seems like they are the answer to all digital analytics and CRO problems. However, as you can see from the survey results, most of the airlines have one other step to take before jumping into data science.

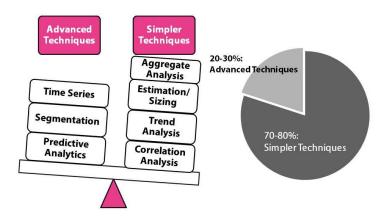
When it comes to digital analytics, this great insight from Piyanka Jain (analytics expert and author of the Amazon bestseller "Behind Every Good Decision") sums it up best for me:

"With all the talk about Big Data and Predictive Analytics – both of which involve complex, advanced skills, and tools, driving millions of dollars in marketing – it is hard to believe in the power of simple analytics.

The truth, however, is that only 20-30% of the decisions really need the use of advanced techniques like predictive analytics.

Seventy to eighty percent of marketing decisions can be judiciously addressed with simple analytics techniques, which can be learned by any marketer with analytics aptitude and executed on an Excel spreadsheet." – Piyanka Jain

Simpler Techniques outweigh Advanced Techniques



"Basically, airlines can do great digital analytics and CRO by using an agile BI system and applying simpler analytics techniques. You can identify most of the conversion trends and actionable insights before mastering real data science and artificial intelligence."

How can airlines do that? Is their web analytics platform enough?

"Here at Diggintravel we use Google Analytics extensively with our clients, and it's a great tool. However, if you want to take another step with your digital analytics, your typical web analytics platform is not enough because when it comes to advanced web analytics there are some things you just can't do in Google Analytics."



"For example, you can't do the following (or at least, it's difficult and requires workarounds):

- Play around with all dimensions you need (Google Analytics is great if you look at your data with one or two dimensions, but when you add more it gets very difficult)
- More complex and advanced visualizations that fit your specific business cases (there are pre-set options and charts in Google Analytics and you can do custom reports; however, options are limited)
- Connect web analytics with other data & sources (again, possible to some extent, but with limited capabilities)
- Perform advanced analysis (for more complex analysis, like identifying a correlation between metrics, you'll need to play with tools like R Studio or similar)"

So what's your advice to airlines looking to take this next step?

"I would advise them to experiment with an agile BI than can enable you to do all the things listed above. At Diggintravel we use Qlik, but Tableau is great as well. Another alternative is Google Data Studio, as lately Google has made impressive advances in reporting and data visualization to narrow the gap.

If they want to see how their web data would look and what is possible, Diggintravel can help them do it without any major investment.

We have built pre-set data extractors from Google and Adobe Analytics (and other sources like AdWords, Facebook, your email system, etc.)." "In addition, we built special airline booking funnel reports that can provide you with real, actionable CRO insights. This way you can get the first results in a few days."



ADDITIONAL READING

If you want to take your CRO analytics from Level 1 to Level 2: <u>How to set up your booking funnel analytics</u> <u>(full Diggintravel article)</u>.

If you want to take your CRO analytics from Level 3 to Level 4: Advanced Web Analytics – Find Your Gaps and Increase Conversion (full Diggintravel article).

DIG IN TO YOUR DATA

Do you want to increase your conversion? Would you like to get more out of your data but just don't have the resources?

Apply smart analytics and find out where your booking funnel is leaking money!



No investment needed – we connect to your data with prebuilt connectors (Google Analytics, Adobe) designed specifically for airline & travel booking funnels.



Fast & agile – get your first results in days, not months.



Specialized expertise – you'll get an airline CRO expert and a data science expert looking at your data and providing you with actionable insights to increase your conversion.







CONTACT iztok.franko@diggintravel.com FOR A DEMO



ASK THE EXPERT: HOW TRANSAVIA IS INCORPORATING DATA SCIENCE INTO CRO ANALYTICS?



Vincent Peijnenburg, Data Scientist at Transavia

Transavia is certainly one of the airlines that recognizes the importance of CRO. They have a special role within the company, a CRO coach, to help build the culture of experimentation and continuous optimization.

In addition to recognizing CRO as crucial process, they changed the organization of their commercial department from a traditional, functionally managed department into a role-based, agile team. Their Data Fleet is a cross-functional team that supports all core units (they call them Bases) and also supports the CRO process.



You can learn in detail about Transavia's agile commercial organization in Section 8 – Company Support and Culture.

How is your core team organized in Transavia, and how does data science fit in?

"The data people (analysts, BI specialists, data scientists, data engineers) are all scattered across the organization. So we are decentralized. I work in Base Direct, where we're responsible for marketing and sales, and all the other data people are in different teams responsible for different parts of the organization. Together we're part of an overall Data Fleet, where all people who work with data are put together. Once a week we get together and basically tell each other what we're working on and get help from each other. It's decentralized, but we get together and benefit from each other's experience."



What is your background and how did you end up in your Data Scientist role at Transavia?

"Two years ago I graduated with a Master's degree in economics, and after that I started with a Data Science Traineeship. I didn't have a lot of experience in math or programming so I learned a lot by myself and online, but also from my Traineeship.

Transavia works together with the University of Amsterdam and professors from the university teach us twice a month for a full day to get up to speed with our data science projects. The idea is to get the background from the Master level (academic study) and then put it into practice on the job."



You also support the CRO team with insights and data science. Can you tell us about one case where you're using data science for CRO activities?

"One of the projects I'm working on currently is called the Express Checkout. Basically, based on your flight history, your visit to the website and which flights you've currently selected, we determine what is the chance that you're going to buy ancillary products. If the chances are low that you're going to buy ancillary products, then we let you skip a couple of pages in the booking funnel, in order we make sure you're going to complete the booking, because we see that additional pages in the funnel can decrease the conversion rate and if you're not going to buy the ancillaries anyway, we're not going to show you those pages."

How are you determining who will go through the "Express Checkout?"

"The model that we have can predict how likely you are to buy ancillaries. If it is a lastminute decision, or if you are on a specific flight where you are very likely to buy ancillary products – for example, on a ski trip to Innsbruck, almost everyone buys ancillaries, but for some very specific short legs where you stay for a very short period of time, it's very unlikely that you're going to buy ancillaries. We use algorithms like the famous XGBoost or similar because it just works very well. It combines the linear relations that we see among the groups."



Note: Read the full interview with Vincent about his data science projects at Diggintravel.com/ blog You also help your CRO team with analyzing conversion trends and correlations. Site speed is one factor you're analyzing, right?

"Yes, our website tends to be very slow, so it's something we try to push to improve. To give it the extra push, it's my job to find the exact relation between the site speed and conversion rate. What we analyze is, first start looking at the loads, so from the beginning to the end of loading the page, this total duration of time, how does it compare to side speed? There is a quite high correlation.

But now I'm more specifically looking at the latency, because this is just a small part of the total loading [time of] the page, but it's the part we can influence more in comparison to the other parts of the site speed. We see that the people with a faster loading website, with a quick latency, they're way more likely to complete the booking. We see that for the people with the top 10% of the fastest level of latency, the conversion is 3 to 4 times higher. So, if we can increase site speed for everyone, we can maybe improve our conversion rate drastically."



EXAMPLE: FULL-STACK AIRLINE DATA SCIENTIST ROLE (FOR DIGITAL ANALYTICS AND CONVERSION OPTIMIZATION)



Data Scientist

AirAsia Apr 2016 – Present • 2 yrs 5 mos Kuala Lumpur, Malaysia

Web and Digital Analytics:

Understand online customer behavior (searching, destination interested, trending and product recommendation) from Google Analytics data via BigQuery.

Deep dive into web stream or digital data to derive potential insights. Translate digital data insights into optimizations of campaigns and ensure online web experience is intuitive, frictionless and relevant to customer's needs.

Customer Analytics:

Design and develop predictive models using algorithms and machine learning. Develop customer segmentation to understand Loyalty, Price Sensitivity, Travel Purpose etc. Develop customer profiling to understand the customers. End to end analytics use case design to deliver business value. Deep dive into customer data to derive hidden insights and potential opportunities. Being the subject matter expert in data science.

Real Time Personalization Analytics:

One to one personalization through marketing cloud solution by understanding online visitor behavior, profile, expectation and segmentation.

Data Visualization:

Translate findings and insights into end user friendly formats by building dashbaords in visualizations tools such as Tableau, Chartio and Google Data Studio.

Strategic Decision Making and Business Planning:

Data Driven Strategic Decision making for Stakeholders.

Provide consultation in strategy and business planning via insights derived from raw data. Main areas of consultation includes marketing, digital marketing and customer experience.

Key Contributions to date:

Sales Funnel Analysis, Attribution Model, Cross Device Conversion Analysis, Acquisition Channel Analysis, Conversion Channel Analysis, Customer Personalization Analysis and Flight Search Recommender System.

Techincal Skills:

Web Analytics Tools : Google Analytics Database : Google BigQuery, Oracle, Mssql Software : R, Python Visualization Tools : Tableau, Chartio, Google Data Studio

The next step for most airlines when it comes to digital analytics is having detailed metrics and measurements of the booking funnel and using agile analytics platform to easily identify conversion trends.

However, CRO leaders are applying advanced data science and analytics to support their CRO activities. Here's an example of a job description for a Data Scientist at AirAsia.

You can see the types of analysis (conversion channel analysis, cross-device conversion analysis being among them), skills and the tools they use for their advanced analytics.

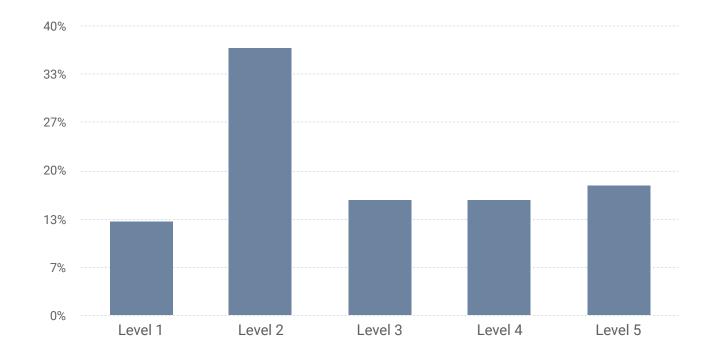


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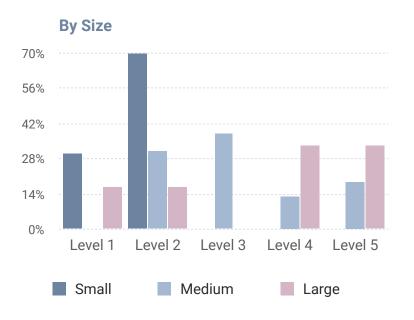
TEST QUANTITY

Q: HOW MANY TESTS AND EXPERIMENTS DO YOU DO?

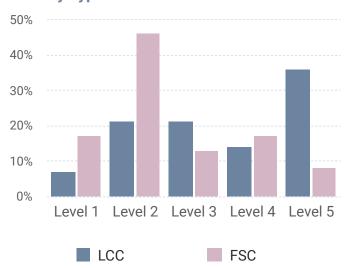
- Level 1: None; 1-2 tests per quarter
- Level 2: Ad-hoc testing (projects); 1-2 tests per month
- Level 3: Regular and planned testing; 2-5 tests per month
- Level 4: Interactive testing; 5-10 tests per month
- Level 5: Disciplined testing; 10+ tests per month



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Ву Туре



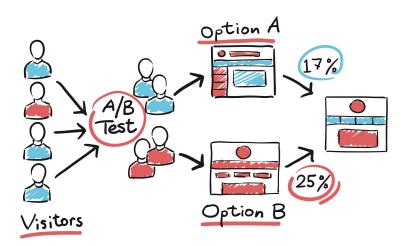
KEY STAT: HALF OF THE AIRLINES STILL DON'T TEST REGULARLY

50% of the airlines from our survey either don't test (13% are at Level 1) or do it only on an ad-hoc basis (37% are at Level 2). Testing quantity is especially problematic for small airlines (none are above Level 2) and FSC carriers, where the share of airlines that don't test regularly is 63%.

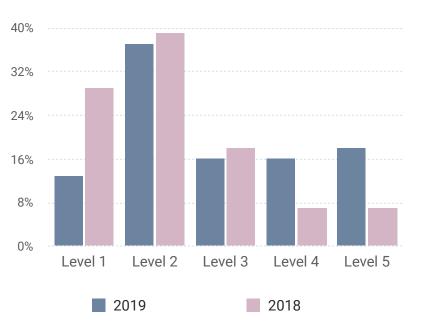
Testing quantity is really where CRO leaders distinguish themselves from the rest. All of our airline CRO Leaders run at least 5-10 tests per month. The best do even more, as 62% of the Leaders perform more than 10 tests per month. On the other hand, among the rest of the pack (so airlines not classified as Leaders), only 20% run more than 5 tests per month.

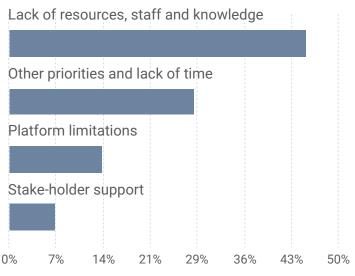
You can find examples of how airlines are scaling up their testing quantity in our **Ask the Expert section**.

To be clear, A/B testing does not equal CRO, as some of the "growth hacking" experts would like to portray conversion optimization. CRO is a much more complex discipline, with several other key areas, as you can see in our framework. However, testing is still extremely important for your optimization and growth. The more you test, the more you learn, and only systematic testing results in long-term conversion growth. You can learn more about why test quantity is crucial for your experimentation and growth in the **Ask the Expert section**, where we discussed this topic with an expert who has worked on large-scale experimentation programs at Subway, Sephora and Microsoft.



KEY TREND AND WHAT'S NEW IN 2019





Compared to other survey areas (People, Skills, and Activities), Testing Quantity is an area where we see small improvements compared to our previous survey.

There are fewer airlines that don't do any testing at all (only 13% are at Level 1, compared to 29% in last year's survey), however, the number of airlines at Levels 2 and 3 is on a similar level as before. Where we did see improvement is among airlines that do testing on a higher scale, as the share of airlines in both the Level 4 and Level 5 categories more than doubled.

So, you'll ask, how can airlines experiment more and run more tests?

These are the key areas that are preventing airline CRO pros from running more tests, according to them when asked about it in our survey: As you can see, airline pros are facing several different challenges. There is still a group that doesn't see CRO as a top priority.

These airlines need to understand the value of CRO and testing as this is the only way to long-term growth. Lack of resources and people is another challenge, and is actually the biggest obstacle. To address this, airlines need to have a CRO Program Lead with the ability to explain the value of CRO to key stakeholders. The third biggest area is technical limitations such as platforms and booking engines. We'll address these issues in Sections 6 and 7 respectively.

Finally, airlines who actually do test on a consistent basis are facing a different challenge altogether – how to test more. You can find some answers and tips on how to do testing on a larger scale in the following Ask the Expert sections.

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ASK THE EXPERT: WHY QUANTITY REALLY MATTERS WHEN IT COMES TO EXPERIMENTING AND TESTING?



Chad Sanderson, Program Manager, Experimentation platform at Microsoft and a CRO Expert.

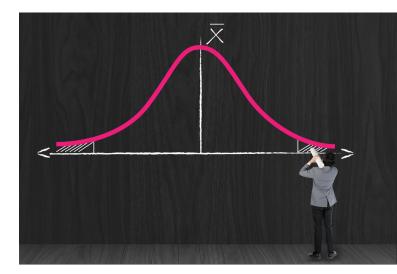
Chad, you've been involved with large-scale experimentation programs at companies like Subway, Sephora and now Microsoft. Why do you think quantity is so important when it comes to experimenting and testing?

"A good question. I wouldn't always say take quantity over quality, but I do think that quantity becomes more important the larger you get as a business because experimentation at its core is about risk management and cost management.

One of the reasons, if I'm a small business, that I'm not running a thousand tests is because there is a massive cost to that and I probably don't have the traffic to get good answers to all the tests that I'm running.

But if I'm a big business, there is a lot of value in prioritizing quantity because the biases that people have are usually in favor of the idea we're proposing, right? Everybody thinks that the test we're launching is going to have a good impact on the website. Otherwise why would we run it in the first place? But the reality is that a much smaller percentage of our ideas win, so the best thing to do is to get as many ideas out there as possible. That way we can have the highest possible chance of seeing something that wins." So in a way it's about the math and increasing chances?

"Yes, this is a bit "mathy," statistics based. If you think about the normal distribution, so a curve that contains all of your possible testing results, the center of your curve, the middle is going to have probably results centered around zero. That's going to be the most common result that we see. As you go farther towards the tail end, to the right and to the left, you're going to see the increases starting to get larger and larger, but they're going to happen less and less frequently. So, you could potentially see increases of 5% revenue, 10% revenue way out on the tail, but based on your distribution that might happen once in every 10,000 tests that you are going to run. So, what does it mean? Run a whole bunch of tests so that you can hit those performers that are on the outskirts of your distribution."





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Note: if you want to learn more about how to plan proper tools for experimentation at a bigger scale check the next section, Section 6 – Tools.

What do you think is the biggest challenge of scaling up?

"I think that one problem that people have with scaling is that they look at it the wrong way. They think that I'm going to be able to take something that works at a small scale and just grow it to be large scale. I can just add more people, add more technology and boom, it's going to work. That's not really how it works. Things operate fundamentally different at a large scale."

So, what do you advise airlines to do?

"What I would recommend to airlines, because they are usually on the large side, with lots of employees, traffic, testing opportunities, is to plan at the beginning for the large scale. Don't plan for small scale and try to grow it. Plan big scale and then fill in your team. I wouldn't say sporadically, but you can backfill a lot of the team members knowing that the real plan is to have many more people. I think the best way to start is the process. Start with a large-scale testing process and understand how the business is going to work with your product teams. How does product work with engineering? What is going to be the method of product development to start testing? When is it going to start?"

The question of when is really a challenge we see with airlines. A lot of them have long development roadmaps. How does this affect testing?

"Yes, many companies have a pretty long product roadmap; sometimes it's a year or more. Where does experimentation fit in that year? If you're only testing at the very end when it's already built, then you are only really doing validation. You're not doing true experimentation, so that's going to be a factor." I see a lot of airlines that struggle with prioritizing testing and having dedicated development resources for testing. They're just trying to squeeze tests into the product development roadmap. How can they change this?

"This is why I said the best [way] is to plan at the beginning by saying the structure of the business might need to change to incorporate testing in the best way possible. So, what airlines with such problems need to do is make the case. Just say, look, we're already paying all this money for a vendor (testing and optimization platform) and we're paying money for the resources who are running the tools and you have analysts who are looking at tests and results.

Having a dedicated developer is going to increase the velocity of your tests probably tenfold. Then you can do all those tests, independent of the sprints. They can do all those little tests that don't require significant development work. You can have that person sitting in the development team informing everybody what's going on."

So it's like building a small, parallel CROdev team with a separate developer dedicated just for testing, an analyst, a project manager and a CRO expert?

"Yes, absolutely! If that is not the case and you're just sending tests into the backlog, it's going to be impossible to say "the marketing team came up with some idea, let's prioritize this really high over the roadmap products that have been in development for like a year." It's not going to happen. When we put a million dollars into new product development, nobody is going to care about marketing copy change. But that is the value of experimentation, to be able to make these changes really quickly."



ASK THE EXPERT: HOW VIVAAEROBUS IS USING ARTIFICIAL INTELLIGENCE TO EXPERIMENT 3X FASTER?



Lee Barrett, Director of Ancillary Revenue at VivaAerobus

Before jumping into the meat of how VivaAerobus is scaling up their airline A/B testing, we asked Lee about his background and how he ended up doing conversion optimization for ancillary revenue:

"I worked for a number of airlines through[out] New Zealand, Australia, and Asia and finally ended up in Mexico. Based on my background I was pretty well positioned to come into a young airline that was looking to take their ancillary business to the next level. I came here because ancillary revenue was not performing at the highest level. It wasn't a sustainable long-term business model. They had the basics in place, but they weren't really sure how to continue to grow and deliver double digit growth year on year."

Lee certainly fits the optimization-minded entrepreneurial profile!

"I really like to pull things apart, really understand what's driving the business and customers' decisions, and then look into how we can capitalize on that and increase the revenue. This is really what I found fun. I always worked in transformation and startups."

What was your biggest challenge when growing your ancillary revenue?

"Everybody is facing the same issue of what the next big product is. We've done baggage, basic economy, food and beverage on board, excess baggage at the airports, travel insurance. So what's the next big opportunity? We were looking for our new lever because we found that we were really between a rock and a hard place: bring more products that produce little more revenue, or increase prices and impact conversion."



"Especially the product that has the greatest share of customer conversion; the more you increase prices, the more you risk damaging your core conversion, which is ultimately just moving money from your left pocket to your right pocket. So, we were desperately looking for a way. We knew there was a solution somewhere, but just didn't know how to get the right offers to the right people at the right time." Is this how you got started with optimization and testing? With your technology partner, you started to play around with propensity modeling and personalization, right?

"That's where we created our sustainability."

You probably didn't start with a big, artificial-intelligence-driven experimentation program and platform from the get-go. Did you start by doing basic A/B tests and simple experiments before calculating propensity and scaling up experimentation?

"Oh, yeah! We've evolved from using basic airline A/B testing. We would run two or three variants over a period of 28 days to get to statistical significance and then start implementing it."

But you always wanted to do more tests and learn faster, right?

"We knew the opportunity was there, but we were so slow. We were crawling. We're like "test, test, let's go," but it was only possible to do a test every 28 days."

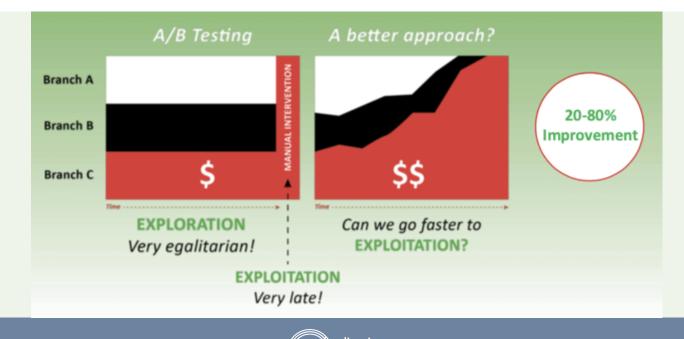
This is why you came up with a new approach – multi-armed bandit testing?

"Yes, now we've moved on to multi-armed bandit A/B testing, which is multiple variants, like 9 or 10 variants, and using an algorithm to reallocate the weight of the test according to the highest performing variant."

Are you using the multi-armed bandit A/B testing to speed up the time needed to come to a winning variant for experiments?

"Well, there are two sides to it. First, A/B testing can be expensive and it's painfully slow. For example, only 30% of our A/B tests pass. Each variant you test that performs poorly vs. the current offer is costing you dollars until the test is complete.

You're also limited to the number of variants that you can test, and it takes almost a month to complete each test once you consider the analytics and everything else that is required after the test. It's just too slow and there is so much money on the table."



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"Whereas with the multi-armed bandit you have many more variants running at the same time. It's reallocating test weight away from underperforming variants, so you're saving money by quickly abandoning concepts that are not delivering and therefore reducing your test cost, and also speeding up the result with higher volumes running though the stronger variants. If you're using a 5-6% test group, you can for example deliver the results in 7 to 10 days as opposed to 28 days. You can declare a winner much faster and move on to your next test."

How many experiments are you running now with this new approach?

"Now we are at around 35 to 40 tests in a year we can deliver with the current technology. The number of variants we can now include in a typical multi-armed bandit test is 8 to 10, so with all 40 tests running 8 to 10 variants (versus our old capability of 12 tests per year with 2 to 3 variants), we are seeing revenue results much faster. Today we are running the equivalent of 100 to 110 A/B tests in the same amount of time."

So, what is the next step? How do you plan to test even more?

"We are moving from the multi-armed bandit testing to contextual decisioning. Hopefully by the beginning of next year we'll fully implement contextual decisioning, so the whole concept of traditional testing just goes out the window. You're just adding more and more variants to your algorithm."



Note: Read the full article: <u>https://www.diggintravel.com/airline-ab-</u> <u>testing/</u> on the Diggintravel's blog to learn more about how VivaAerobus is USING A/B testing and optimization in practice.

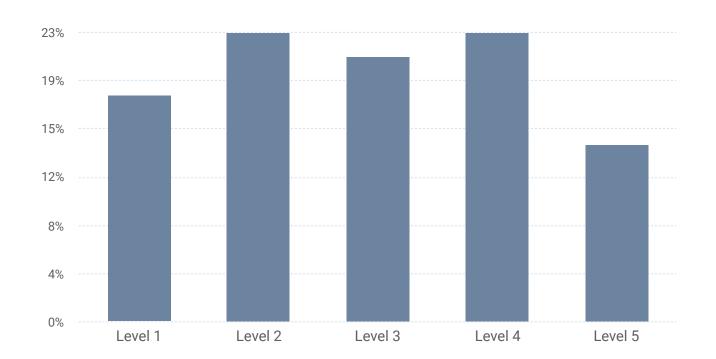


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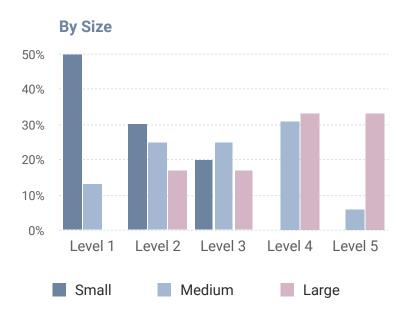
TOOLS

Q: WHAT TOOLS DO YOU USE FOR YOUR CONVERSION OPTIMISATION ACTIVITIES?

- Level 1: Web analytics, performance monitoring
- Level 2: Level 1 + A/B testing tools, session recording
- Level 3: Level 2 + onsite client feedback, form analysis, heat maps
- Level 4: Level 3 + project management tool for optimization, personalization tooling
- Level 5: Level 4 + multichannel analysis, personalization automation, predictive analytics & optimization



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Ву Туре

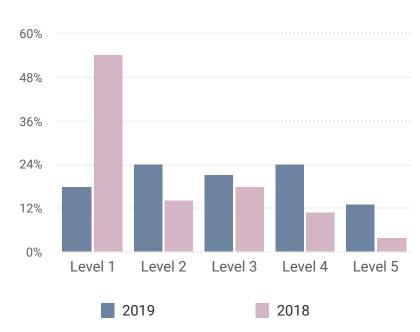


KEY STAT: AIRLINES ARE STARTING TO INVEST MORE IN CRO TOOLS AND TESTING PLATFORMS

37% of the airlines claimed they use advanced CRO tools (Level 4 or Level 5). These airlines use tools for CRO project and workflow management, testing platforms, tools for collecting client feedback, form analysis and some sort of personalization engines. However, there are still a number of airlines (18% at Level 1) that don't use any specialized CRO tools. They only use web analytics to monitor performance and conversion rate.

There is a big gap between small and large airlines when it comes to CRO tools. 80% of small airlines use only basic CRO tools, and none of the small airlines is above Level 3. On the other hand, 66% of large airlines use advanced CRO tools (Level 4 or 5). There is also a big difference between LCC and FSC airlines as LCC airlines are much more advanced when it comes to CRO tools. 64% of LCC airlines are at Level 4 or Level 5; this share is only 21% for FSC carriers. There is a direct correlation between the number of tools and methods you use for CRO activities and your conversion performance. The more activities you do, the more structured your CRO process will be. The testing platform is a key element of your CRO activities as it enables you to test all hypotheses based on the data and user feedback you gathered with other tools. As noted in the prior section (Section 5 - Test Quantity), many airlines still struggle with running tests on a regular basis. Testing platforms are part of the reason why, which is why we'll focus on the challenges of using testing platforms in the remainder of this section.

KEY TREND AND WHAT'S NEW IN 2019



There was a big shift in CRO tools usage from last year to this year. In our prior survey, 54% of airlines claimed to use only web analytics and performance monitoring. This number dropped to 18% in 2019. Airlines are recognizing the importance of testing, optimization and personalization and are investing in tools to run the necessary activities. 37% of the airlines in this year's survey said they use advanced CRO and personalization tools; this share was only 15% in the previous survey.

When planning to build a CRO program, a testing platform is one of the key elements you need to consider. Do you use a vendor or do you build your own testing platform? How will testing and the testing platform be integrated into your digital product development process?

Ron Kohavi, Vice President of Analysis & Experimentation at Microsoft, provides the following take when it comes to testing platforms: "Scientifically testing nearly every proposed idea requires an infrastructure: instrumentation (to record such things as clicks, mouse hovers, and event times), data pipelines, and data scientists.

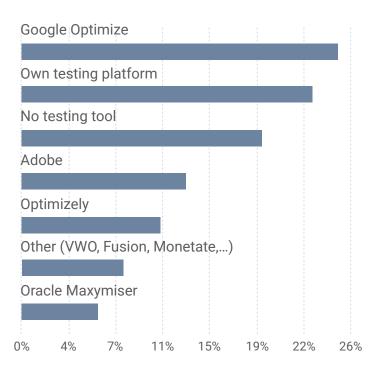
Several third-party tools and services make it easy to try experiments, but if you want to scale things up, you must tightly integrate the capability into your processes. That will drive down the cost of each experiment and increase its reliability. On the other hand, a lack of infrastructure will keep the marginal costs of testing high and could make senior managers reluctant to call for more experimentation."

This is why large organizations like Microsoft and Amazon and travel digital giants like Airbnb, Uber and Booking.com all built their own testing platforms. Testing capabilities are the core of their digital platforms and product development, and they run thousands of tests. However, these are digital companies that have only digital products and as such are not the right comparison for most airlines (especially small and medium-sized ones).



MOST POPULAR TESTING PLATFORMS

The following chart presents which options the surveyed airlines chose when it comes to testing platforms:



As you can see, only 22% have their own testing platforms (or use them in combination with other vendor platforms), and only a few large LCC carriers are really integrating the testing platforms tightly into their digital ecosystem.

Currently, the vast majority of airlines are using third-party vendors to run tests and experiments. Google Optimize is the most popular testing tool, followed by Adobe Target and Optimizely.

These three tools are also the most popular among optimization professionals in the WiderFunnel "The State of Experimentation Maturity 2018" research. The only difference is the order; in the WiderFunnel survey, Optimizely was in first place, followed by Google Optimize and Adobe Target.



ASK THE EXPERT: BUILD YOUR OWN VS. VENDOR TESTING PLATFORM?



Chad Sanderson, Program Manager, Experimentation Platform at Microsoft and a CRO Expert.

What is the most important thing to consider when investing in a testing tool?

"The tool, it is very, very important. What I believe is when the initial investment for conversion optimization is made, you want to build something that scales with you in the future so that a year later you're not having to go back and reevaluate, you don't have to change your team structure, having to tell your management that you are extremely limited in the amount of tests you can run because of the type of tool you have bought.

So, the tool is super important, no doubt there. But you should get the tool that is right for the team that you want to build, and the team you want to build should be an extension of the things you actually want to accomplish with experimentation."

So you need to think about the goal of the experimentation process first, before you choose your tool?

"Yes, that's the step that people need to take first. Really think very deeply about what is the function of testing in [your] company. Is your company an engineering company or a [digital] product driven company, or is it mainly a marketing driven company? That's going to determine it. How many people do you see allocating to optimization long-term? That's a big question." So airlines need to understand how embedded testing is into their digital product and marketing processes?

"Correct. If you have let's say ten marketers that are willing to learn a bit of HTML, they can go and use a low-cost WYSIWYG style tool and make a whole bunch of minor changes that are important to them.

For example, at Sephora one thing that was really hugely important to us was the type of offer we could make on our hero banner, because these products are really expensive. It turned out that was actually something that was really important. You don't need to have a really complex solution to change out images. Building hypotheses and running more tests around those images might just require a few more people than just one or two if you want to do tests with any kind of frequency."



This just might be the scenario that some airlines want to achieve – testing different banners, visuals, copywriting, etc. But on the other hand, testing around the real product and pricing might require a different setup. Some airlines want to test different pricing scenarios, product bundling, different booking flows, etc. What do you suggest for this?

"If you are on the engineering side, maybe you want to test all kinds of things. If you're a Microsoft or an Amazon or even a bigger airline, you want to test pricing structures. Or you want to test every time when you have a new release, every single piece of code that goes out and needs to be tested. That is what requires a completely different setup. Businesses should sit down and think really hard about what exactly they are trying to accomplish and who is going to be driving the success of it, and also how they are going to measure the success. That will determine everything: the tool, team structure, everything."

Will this also help you answer the question of using a vendor versus building your own testing tool?

"Yes, once you know all that you can think about, how are we going to build and scale this tool? Are we going with a vendor and the expectation is this vendor will be able to support us when we're running 5,000 tests? Or is it, we know in advance we're going to have to build our own testing internal tool because going first-party is the only way that we can get access to all this data, we're not going to have any latency, etc.?

So, plan for large[scale], think about the process, think about the team and then think about the tool."

Lastly, when you're talking about the tool, do you mean the experimenting platform or also all other tools that are needed for CRO?

"All of the tools, absolutely. The testing tool is one really important tool and you have to get it right, but there's a lot of other stuff – for example, CRO workflow tools that are able to congregate all your hypotheses, where you build your knowledge base.

Also if you're a big company and have a ton of stakeholders, for example, and these stakeholders need visibility to everything that's running at all times, and you also have a lot of analytics stakeholders and a lot of engineering stakeholders across different products.

Maybe you need to come up with a custom solution that gives people some insight into what's launching. For example, if you have a lot of QA environments, how you're letting everybody know when you're pushing just a random test to the QA environment to see if something works or not. Tooling is a great way to answer that."

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ASK THE EXPERT: TO TAKE YOUR CRO TO THE NEXT LEVEL, DO YOU NEED TO EMBED TESTING FUNCTIONALITY INTO YOUR CORE PRODUCT?



Emre Güney, Senior Growth Manager at Skyscanner, previous Head of Digital Product & Growth Marketing at Pegasus Airlines

Do you have your own experimentation platform at Skyscanner?

"Yes."

This is what we see as a trend for companies that really want to scale up testing; to reach a higher level, in the end you have to build your own platform. Would you agree?

"Yes, it goes hand in hand. You need to build your [digital] product very scalable and configurable because if we look at it [on a] really high level, it's like they say for marketing, that marketing is so important that it shouldn't be left only to the marketing department.

It's the same for growth and experimenting. It's not only for people who are labeled [growth] or work in the growth teams. It's everyone's job. So, you need to develop your product so that it's really configurable and everyone can experiment within it. And you need to build an experimenting platform in a way that it's embedded in the product, so you can solve your problems with a proper hypothesis much faster." This is where we see many airlines failing now, because like you said, the experimentation platforms are not embedded into the core product. How do you see this problem?

"I agree. The current industry (third-party vendor testing tools) is like a layer, something that is in front of the [user] experience. It gives you a certain level of flexibility, but of course you can't embed them with the core reservation system. So, you can't experiment on some core functions like pricing, bundling and those kind of things."

If you want to take your CRO to the next level, you need to be able to test more complex optimization scenarios. For example, you can test different versions of the booking funnel, different steps and different flows (like Transavia's Express Checkout, as explained in Section 4). If you want to do such experiments, testing should be embedded into your core digital platforms. However, many airlines are using pre-built internet booking engine solutions that don't provide a lot of flexibility when it comes to testing. Furthermore, some don't allow testing at all. This is why internet booking engines are a special area of our CRO maturity model.

In the next section, **Section 7 – Internet Booking Engine (IBE)**, you can see how flexible (or inflexible) current booking engine solutions are when it comes to A/B testing and experimentation.

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EXAMPLE: DR JEKYLL, SKYSCANNER'S INTERNAL EXPERIMENT PLATFORM

As made clear in our interview with Emre, Skyscanner built their own experimentation platform. Below are some insights from Skyscanner's Medium blog on how their internal experimentation platform supports their optimization activities.



SOPHIE HARPUR, FORMER GROWTH EXPERIMENTATION MANAGER AT SKYSCANNER:

"We have our in house experimentation platform, called Dr Jekyll. By investing in our own experimentation platform, we can get to the heart of our products, test assumptions and increase the frequency of testing for our users, impactful and valuable changes. Having our own experimentation platform also allows us to tailor the platform for the use of our internal users and specifically, the metrics they are interested in measuring which aligns with Skyscanner's strategy."

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HARLEY GRIBBEN, PRODUCT MANAGER AT SKYSCANNER:

"I had basic knowledge on experimentation, but nothing like what we do at Skyscanner – Dr Jekyll has made this much easier for me to put things out to users and know the impact it can have. My squad is enabled and I am enabled to best serve the traveller."

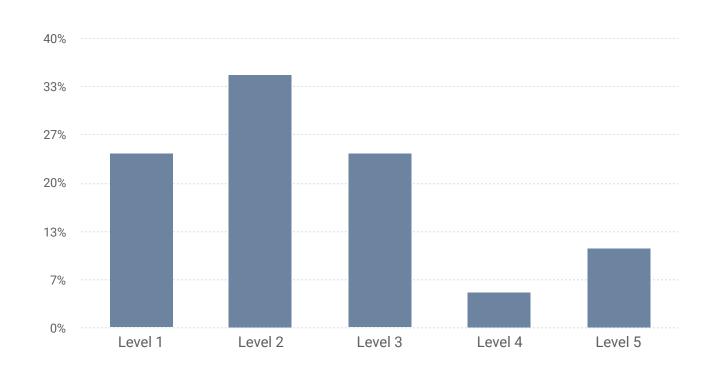
MIKE MORAN, ENGINEERING MANAGER AT SKYSCANNER:

"At our scale even what seems like the smallest tweak or optimization can have a large business impact. Our platform allows us to see these effects from bottom to top. This means Engineering can hold itself accountable, and move purposely but with safety, in exactly the same way as our other disciplines." VII.

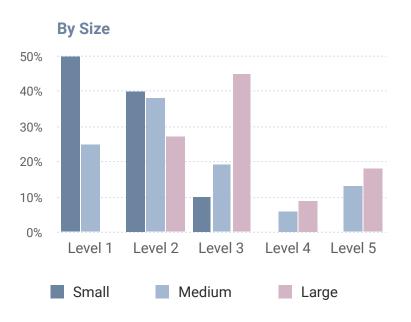
INTERNET BOOKING ENGINE (IBE)

Q: HOW FLEXIBLE IS YOUR INTERNET BOOKING ENGINE (IBE) FOR A/B TESTING AND OTHER EXPERIMENTS?

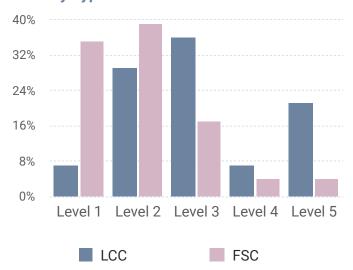
- Level 1: Our IBE doesn't support A/B testing and experiments
- Level 2: Simple A/B testing and experiments are possible but with workarounds and take a long time & effort to implement
- Level 3: We can do basic and semi-complex experiments and A/B tests on an ongoing basis
- Level 4: We can do split-path A/B testing, have & test several versions of booking flow at the same time
- Level 5: We completely own and manage booking flow and have no limitations with A/B testing and experiments



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KEY STAT: BOOKING ENGINES ARE STILL HOLDING AIRLINES BACK FROM RUNNING MORE TESTS

59% of the airlines claimed they have internet booking engine (IBE) solutions that are not flexible for A/B testing (Level 1 or Level 2). 35% from this group said their IBE solutions allow them to run A/B tests but it takes a lot of time and effort (Level 2), and the other 24% said their IBE solution doesn't support A/B testing at all (Level 1).

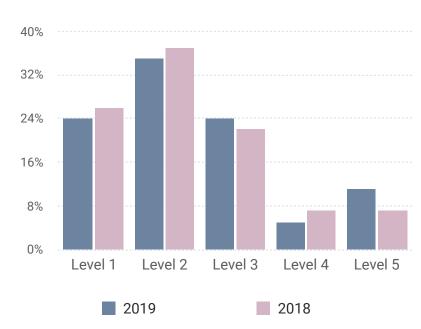
On the other hand, only **16%** of airline optimization professionals are satisfied with the testing capabilities of their IBE platforms (i.e., only 16% are at Level 4 or Level 5).

Because of limited resources, small airlines mostly use pre-built IBE solutions from major industry vendors. 90% of small airlines said their IBE solutions are not flexible when it comes to testing. Large airlines mostly build their own booking solutions based on APIs, so they have much more flexibility with customization and running tests. Consequently, only 27% of them are not satisfied with their testing capabilities. Because of a more complex distribution and IT landscape (and legacy solutions), FSC carriers' IBE solutions are much less flexible than the ones LCC airlines are using.

In the prior section (Section 6 – Tools), you could see why selecting the right testing tools is crucial for your conversion optimization program. To take your CRO and experimenting to a higher level, you need to run more tests and be able to do more complex optimization scenarios.

To do that, testing needs to be embedded into your core booking platform (IBE). If you can't run split-path tests (run different versions of booking flows), you're basically just optimizing pages within the same booking funnel. This is still better than running no tests at all, but your optimization and the results are really limited.

KEY TREND AND WHAT'S NEW IN 2019

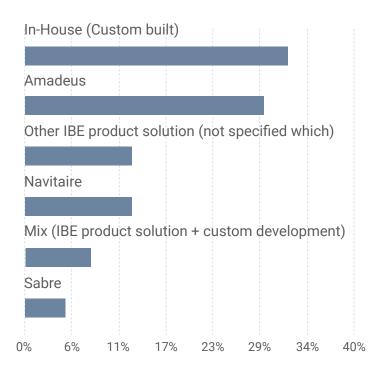


If you compare the 2019 results to the results of our previous survey regarding IBE platforms, you can see that they are almost identical. While for most other areas the results were significantly better than in the prior survey, airlines seem to be stuck in the IBE area.

There is some logic behind this trend, as changing the booking platform is not a simple project and it usually takes airlines a lot of time to migrate to a new solution. Actually, a few airlines in our survey said they are in the process of migrating to a new IBE solution which will enable them to be more flexible when it comes to testing.

AIRLINES' INTERNET BOOKING ENGINE (IBE) SETUP

In the following chart you can see what kind of setup airlines have when it comes to their online booking platforms.



About one-third of the airlines (32%) use their own in-house solution, and an additional 8% use a combination of IBE solutions but with custom development on top of it.

When it comes to IBE product solutions, Amadeus is still the most popular, especially among small and medium-sized airlines. Not surprisingly, this setup is not very flexible when it comes to testing (Level 2 on average for the airlines who claimed to use Amadeus IBE). Navitaire is the product solution most popular with LCC carriers.



If you really want to take your CRO to the next level, you should "own" your platform. CRO is all about constant optimization, experimenting and doing fast iterative changes. If you have a solution that requires long product development cycles, with one-size-fits-all releases, then your CRO will be really limited.

For bigger airlines, "owning" in most cases actually means having internal development and UX teams and their own in-house platform which they fully control.

For others (especially smaller airlines), "owning your platform" probably has a different meaning. It means working on a setup (a combination of a flexible IBE product solution, specialized digital provider, etc.) that allows you to be agile and flexible.

You can find some ideas on how to take control of your airline's digital platforms in the next Ask the Expert section.



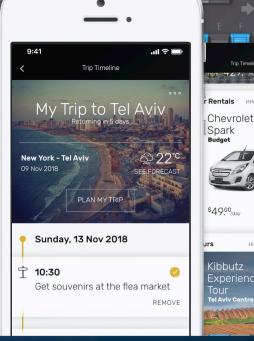
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" I highly recommend Travelaer to other airlines looking for a customer centric partner."

- El Al



ASK THE EXPERT: HOW TO OWN YOUR DIGITAL PLATFORM



Mike Slone, Chief Experience Officer at Travelaer

Mike has been involved in the travel industry since the early '90s. He worked for a UX company that built digital experiences for Southwest Airlines, he managed digital at Vail Resorts, and he has been the Global Lead for User Experience at Amadeus, where he consulted with many airlines on UX.

You've worked on airline digital platforms and UX for such a long time. Why did you start Travelaer?

"I didn't think that the things I was doing at Amadeus were making [enough of] a difference. What I learned was, ultimately to improve the airline digital experience you must control the technology behind it. That's how Travelaer was born."

When you talk about airlines controlling or owning the technology, why do you think many airlines struggle to do that?

"Own is a difficult word to define, let me be clear on that. For a while I thought the best direction for airlines to take was the API route, with booking engine providers providing APIs.

Over the last two or three years I've seen a couple of airlines try to implement their own digital experience on top of API from the legacy vendors."

"Frankly, the airlines, for as much as they talk [about] wanting to become software companies, wanting to take control of the user experience, ultimately the APIs have been too difficult for the airlines to use. And it's been very expensive for them.

So when I say "own," what I really mean is control. They need to control the environment that they are basing their entire digital experience on, especially the booking, manage trip and online check-in. They need more control of it. So, if they can build on APIs and NDC and build their own user interfaces on top, that's great because that allows them to control more of their user experience, but there are also other ways."

So, what are the other ways to do it?

"There are ways when they're building their booking engine to get more capabilities directly from administration tools, things like that, without having to go the API route. After watching a few airlines that have tried to implement API based engines, I don't think they are really ready for it. You end up seeing multiple airlines spending multiple years essentially building the same thing they had, adding no new functionality, just to get up to speed. We at Travelaer offer API and NDC solutions, so I'm not saying it's not the future, I just don't think most airlines are capable of handling it right now." That's what we've seen in our survey. There are bigger airlines that have solutions on the APIs, but there are smaller ones struggling with legacy, inflexible IBE solutions. Probably the short-term solution for them is not getting everything in-house, because you need to have the digital background, the digital DNA and the team, right?

"Yes, I agree. I love digital agencies and I think they do a lot of great things on the creative side, but for the people you have involved in building your user interface on top of API or NDC, there is a lot of airline lingo they need to use. There is a huge learning curve; it takes years for people to learn this stuff. So working with people who are experienced not only in the digital space, but also with airlines and travel, is a huge thing."

What would you advise for airlines that don't have these capabilities yet?

"What we want to see is that airlines choose what I would call best-of-breed providers. To me this is the most important [factor], because now we have airlines that are typically with a larger legacy IT company, whether it is Sabre or Amadeus. These are the easy ones. Airlines don't have to think; they just need somebody that can provide features and functionalities to them.

But what you end up getting is 10 or 15 airlines who are the largest airlines and have these custom solutions. Then you have the smaller to medium-sized airlines, maybe 90 or 100 of them, and they have a cookie-cutter platform, they have no flexibility, they maybe don't even have responsive design." "Both of those groups have their own issues – one being that the 90 airlines are on a common platform that they can't update. They have to wait for the community updates and typically these things are three to four years behind. And the large airlines, because they have custom builds, have teams that are limited on doing the updates and the things that they need to do."

It seems like a tough challenge to crack.

"There is not a great solution for a lot of airlines out there. That's why I think you have to look for a best-of-breed provider that can essentially orchestrate. Instead of trying to get everything out of one company, find companies that do certain things best and have a company like Travelaer to stich it together for them. That will allow airlines to have a much greater user experience and much more control. It may seem daunting at first to have to go with multiple providers, but in the end people that specialize and do A, B and C really well instead of trying to do A through Z, you're going to have a much better experience."



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"I don't think there are a lot of providers out there that are best-of-breed providers like Travelaer. The reason that we built the platform we built is that we recognized there are certain providers that do pricing well, there are certain companies that do merchandising well, but we are an orchestrator, the glue that ties it all together. There are also companies that do personalization well but without the visualization on top of personalization, and that's just science, just technology.

So, I think there are a few others like Travelaer out there, but the legacy vendors make it difficult for the airlines to leave, and airlines are also scared of going out of that big bubble.

A lot of people think that we are a UX agency that has technology, but we like to think of ourselves as more of a technology product company that is UX savvy. That is the big difference. You need people that understand technology, the booking engine, content management systems, personalization, merchandizing engines, and they can pull all of this together for an airline in one cohesive package instead of trying to hit the easy button and get only one provider to get you everything."

What are the components airlines need to tie together to build a good, flexible digital merchandising platform?

"The first part is to understand your customer and how you can match your customer needs with your business goals. Then you need a flexible user interface (UI) that you can control and [that allows you] to visualize the science behind the personalization and the merchandizing. That means having a flexible booking engine itself or a flexible booking engine partner.

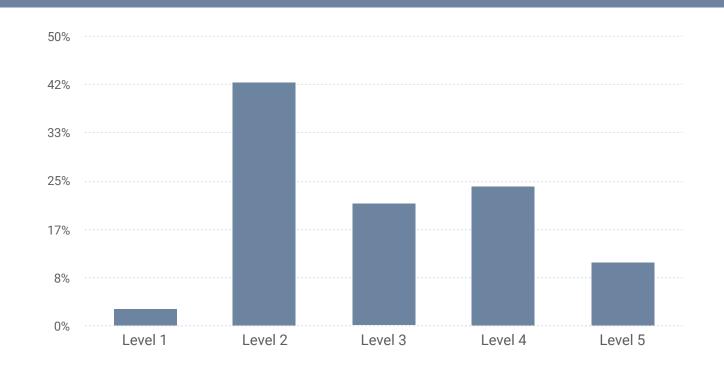
After you have those basics in place, you can connect it to a personalization or merchandizing engine to take what you have and simply make it smarter. To me, those are the three key steps, and to have UX people embedded directly into your development teams is crucial. Or if you are an airline and you don't have your own development teams, having a UX person or somebody that's design savvy as part of your distribution team or part of your ecommerce team is key because they can look at what the booking engine provider has, whether they can actually do something with the user experience to meet the customer needs."



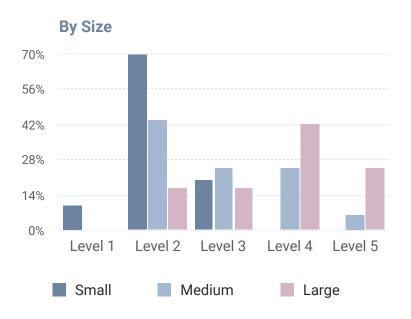
ORGANIZATION SUPPORT

Q: WHO IS A CONVERSION OPTIMIZATION SPONSOR IN YOUR ORGANIZATION?

- Level 1: None conversion optimization is recognized on an individual level
- Level 2: Head of Ecommerce conversion optimization is recognized on a department level
- Level 3: Director level conversion optimization is recognized by director or higher management
- Level 4: VP level conversion optimization is recognized and supported by VP level executive (top management support)
- Level 5: Entire organization conversion optimization is recognized as a crucial activity and has companywide (C-level) support



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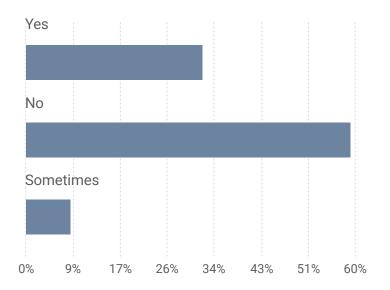
Ву Туре



KEY STAT: ALTHOUGH CRO IS STILL MOSTLY RECOGNIZED ON A DEPARTMENT LEVEL, IT'S GETTING MORE TRACTION IN THE HIGHER LEVELS

For **45%** of the surveyed airlines (those at Level 1 or 2), CRO is still only recognized on a department level, usually an ecommerce level. Only a third (35%) of airlines claim that CRO has company-wide exposure and top management support (Level 4 or Level 5). This share is much higher (50%) for the LCC airlines, compared to FSC carriers where the share is only 25%.

We got similar results when we asked optimization pros if they have problems explaining the value of CRO to their stakeholders (as 40% said they still struggle with that):



The following comment from one of the survey respondents really illustrates the challenge a lot of you continue to face when explaining the true value of CRO: "Most of the stakeholders have more interest in having new features than invest[ing] our effort on CRO."

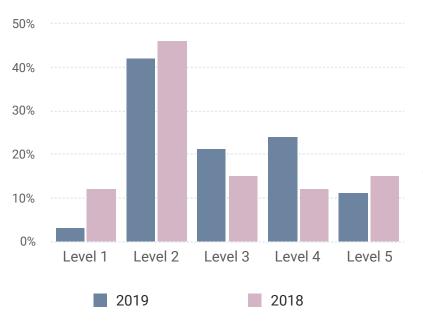
Clearly, some stakeholders are still chasing the next shiny object, the next trend. If we're talking about features instead of looking at optimization as a continuous optimization process based on user research and data, then CRO still has not been recognized properly. Optimization should not be seen as merely an ecommerce process, or even as just a marketing tactic (a.k.a. growth hack).

To achieve long-term growth, airlines need to embrace optimization as a strategic initiative. I'll repeat here a quote from Bart Schutz (an optimization expert) from last year's Diggintravel whitepaper, as it really emphasizes the importance of company-wide recognition:

"Embracing optimization caused hockey stick growth among lots of digitally mature companies. Yet lots of other companies still struggle to follow their growth paths. A major cause is the embedding of 'optimization' in an online marketing team, instead of embedding it as a 'company-wide, data-driven & evidence everything' culture.

"Exponential growth through optimization is not about an online marketing instrument, it's about DNA. Top down; embracing optimization should be a board level decision. Optimization is often a way more effective business strategy than innovation. Bottom up; the marketing and ecommerce teams that are currently 'just optimizing web & app pages' should start focusing on growing their business as a whole. Start applying optimization omni-channel and across all customer journeys and touchpoints."

KEY TREND AND WHAT'S NEW IN 2019



If you look at the comparison between the 2019 survey results and our previous survey, we can find positive trends when it comes to organizational support for CRO. First, there are almost no airlines left where CRO is recognized only on an individual level or not recognized at all. There was a shift this year so that CRO is now, in most cases, supported by ecommerce department managers (Level 2) or on a director level (Level 3).

However, there was a second, even more significant shift – the share of airlines for whom CRO is recognized on a VP or companywide level (Level 4 or Level 5) increased from 27% to 35%. This means CRO is recognized and supported by top management in more than a third of all surveyed airlines. For large airlines and low-cost carriers, this share is more than 50%. Establishing optimization as a strategic process should definitely be the end goal for all airlines. If done right, optimization guarantees continuous learning and is a strong foundation for your growth. However, process is not enough. Optimization and experimentation require a different mindset and culture. Fostering a culture of experimentation, failing fast, and learning constantly is crucial if you want to succeed.

This is what one survey respondent said when asked about their biggest pain point when it comes to taking their CRO to another level:

"Culture. If we had the right culture, we'd have the right mindset. Right mindset, open to understanding and learning. Once understood, barriers to resources (human and fiscal, processes bureaucracy) would be reduced."

To help you identify the key to overcoming that challenge, we talked to two people who have worked both for airlines and digital travel companies where a culture of experimentation really thrives. You can find their insights in the following Ask the Expert sections.

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ASK THE EXPERT: "FEAR OF MISSING OUT" VERSUS "FEAR OF MESSING UP" MENTALITY



Faical Allou, Product Owner Data Science at Trivago (formerly at Skyscanner, Sabre, Lufthansa Consutling, Royal Air Maroc, Air France)

Faical, you preach and teach travel businesses about the value of experimentation. You've also worked for many different travel companies. When it comes to experimenting, what do you think is the difference between airlines and online travel companies like Trivago or Skyscanner?

"In a very simple term, the difference is the frequency and the amount of experiments. In the airline industry, because it is very asset intensive, we buy airplanes for twenty years, there is this mentality of planning a long time in advance and having very long cycles. Also, because travel is seasonal, you have peak and low seasons; people tend to put something together for the next season, wait for it to go by and wait for the following year to really look at the numbers and try to understand things. So the experiment cycle is very often a year."

And how is the mentality different at travel digital or travel tech companies?

"When I moved into tech, to Skyscanner for example, the pace was much, much faster. There was even this fear of missing out on a test slot. You have a lot of traffic and you can get a lot of learning from it, even forgetting revenue and all of that." "It was purely, we have a lot of people trying our website, we need to learn as much as possible. If we're not running the tests, we are actually wasting resources. There was always the mentality of running as many experiments as possible.

I was sitting in a meeting [and] there was this chart about the number of experiments running, and I thought, why would you care about counting the number of experiments? It feels like a vanity metric. You do hundreds of experiments or you do ten, it's not even the same weight. But now, the more I think about it, it's really just a management trick to push people to experiment more. We really want to see this number very high, and we'll optimize after.

In Trivago it is very much the same. We have the same mentality, that fear of missing a test slot. We want to gather as much learning as possible. If there is a test slot available and nobody is trying anything on it, then it's wasted. That's the big difference in mentality."



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With airlines, even in IT and ecommerce we still see these long, one or two year projects, like the implementation of new booking engines. Do you think this is part of the same background, same mentality?

"Yes, it's really that mindset with airlines. We need to put it in perspective: they fly airplanes with hundreds of people inside them. There is safety and regulations. All of that mentality that is top of mind [for] the CEO trickles down to the entire company. There is always this fear of messing up. So, before we put something up to the public, we need to make sure everything runs and nothing breaks. That really extends the experiment cycle. That shouldn't happen, because some of those things in ecommerce are not critical."

You not only advise airlines to be more agile, but also to focus on experimenting with the core product – the airplane, the cabin, the schedule. This is transferring CRO from ecommerce and web to the core product – which is what tech companies do, but for them the product is only digital, right?

"Yes, and it's always easier to do it for the software than to try it on the hardware, the schedule, etc. I've done network planning for a long time and I can tell you when you plan for a season, then you have to wait for the end of the season to start planning for the following one, there is no accountability. There is no measurement. Does this route work or not? We actually don't know until a year after, and after a year everything has changed. The environment is completely different, political situation is different." "So, my recommendation is to run experiments on your core product – on the network, on the cabin, on the revenue management. The revenue management is actually something that can be done pretty simply, displaying two different prices. But there is always this mentality that if the user realizes there are two different prices there will be a backlash. Yeah, maybe. But in every product there is experimentation. You load the page and it looks different when you refresh your browser. I think there is a lot of fear, more than technical hurdles, and that's something that has to be pushed, probably from the very top."

ASK THE EXPERT: HOW TO ORGANIZE YOUR COMPANY TO RUN MORE EXPERIMENTS?



Emre Güney, Senior Growth Manager at Skyscanner, previous Head of Digital Product & Growth Marketing at Pegasus Airlines

When we talked about how to organize your CRO team (see Section 1), you said that the most important thing is the invisible part of the iceberg – the culture. Is this the biggest challenge airlines face, to empower people for experimentation and grow this culture?

"Yes, it's the culture. It's in [our] nature for people; nobody wants to be wrong, especially upper management. When someone says "let's change this at checkout, let's put this ancillary on this step," when you experiment on that idea, that hypothesis, and you see bad results – as a growth professional you get excited because you failed fast and you failed forward. But if you didn't do this [experiment] and you spent all resources on building that thing, you would be failing much in deep. You would be in much bigger trouble.

By culture I don't mean only convincing the CxO level but other stakeholders as well, because in a huge airline, the digital products are for everyone. Especially for end customers, you always need to listen to the end customers.

So, yes, having customer requests in the production pipeline and aligning all the stakeholders with the experimentation and learning culture is the biggest bottleneck." What was your experience with this mindset when you worked in an airline environment?

"Airlines are more operation-oriented companies by their nature. They should be, because they do a fantastic job of transferring people from point A to point B. This job is really hard, lots of regulations internationally, so the focus is there. So when you try to make your booking engine more flexible and scalable it takes time. It's not something you can do overnight."

Now that you moved to Skyscanner, a digital travel company that only has a digital product, what would you say is the biggest difference when it comes to culture? What is the main difference below the tip of the iceberg?

"I was really surprised when I started here.



Even though I was following Skyscanner's Medium blog and what they share about their transformation, I was surprised how deep the experimentation and growth mindset is and at how largescale it is.

Lots of people are focusing on growing products at every step of the funnel within different markets. The speed and the pace here is mind-blowing. Every day you learn something new, and it's not always good news; there is bad news as well. Sometimes failing at an experiment can show you a quicker way to solve a traveler's problem. Or you see winning cases in other markets you can apply in the other markets and test if it works there as well.

I would say there are two main differences. One is the scale, like the people, the tools and the culture. But there is also the focus. There is only one focus here – that is solving travelers' problems via digital products, since there is no operation here."

I also follow Skyscanner's Medium blog and see the agile organization of squads and tribes. Is this matrix organization something that helps Skyscanner do experimentation and optimization on a large scale? Does having many teams working on different parts of the digital journey and optimizing it constantly instead of one central team help you do more?

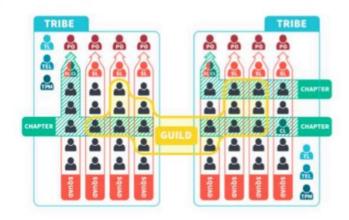
"Yes, that helps a lot. It makes things faster and quicker. And it's not black and white. If something doesn't work at organization, we try something else in terms of team structure, etc. Experimentation culture is also the way we work." "Let's say if you don't run your processes through Trello, then try something else.

It's very flexible and very quick. That kind of structure enables this speed and quickness. Having non-centralized and distributed squads and tribes in a matrix structure gets people to work closer and quicker."

Looking back to your work at Pegasus, and the things that you've since learned at Skyscanner, if you were to go back to Pegasus what would you do differently?

"I would try to implement even more agile and lean approaches, even though we tried really hard with that. Pegasus was actually one of the rare airlines in the region focusing on growth and conversion optimization. So, yeah the focus would be on upscaling people and increasing the speed."

Skyscanner Squads and Tribes



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