The Return on Investment of a Great User Experience

uxprobe®

Table
of contents

User Adoption has become one important key for an app's success

Executive summary

The bar for quality of User Experience (UX) is set very high by the industry leaders – think about what Apple has achieved, or more recently AirBnB, for example. We all, as customers and users, are expecting the same great UX from all of the apps on our devices. Therefore when we have a bad experience with an app, it affects directly our perception of the service delivered by the app. This has direct consequences on the business.

Integrating users all along the working process will provide
Return on Investments (ROI) as diverse as:
- Reduced Development Time & Costs
- Reduced Maintenance Costs
- Reduced Customer Support Costs
- Increased User Adoption and Satisfaction
- Increased Revenue Growth
- Increased Productivity
- Optimized Opportunity Costs

Investing in resources and discipline to understand your customers is one of the best ways to deliver a great UX, and therefore a category winning app and a successful business.

79 % of users would only retry an app once or twice if it failed to work the first time

Introduction

In a world that goes more and more mobile every day[1], apps are no longer simply about quaint diversions and nice-to-have gadgets. They're serious products that happen to live on the most important innovation to come along in decades: our mobile devices. Everything lives on our smartphones and tablets today[2]. SEE PIC 1

This has become so true, that nowadays and in the future, enterprises will be mostly judged on their app performance as a surrogate to the business itself.
Because of the increased number of apps pushed out every day[5], it becomes suddenly quite a fight to maintain an app on the market. And just as with traditional competition, an app must be better and more engaging than the one the competition offers[2]. This is increasingly true in every category, including apps for services like banking or telecom.

To be successful, an app has to perform perfectly (time to launch, bugs, usability) because people have a very low tolerance for buggy apps. **79 % of users reported that they would only retry an app once** or twice if it failed to work the first time[3]. A successful app also needs to meet users' expectations (in terms of content and value). **80% of apps are deleted after one use**[4]. If it fails to find an audience and is not used, the app will not even exist. User Experience has become one of the major indicators for a succe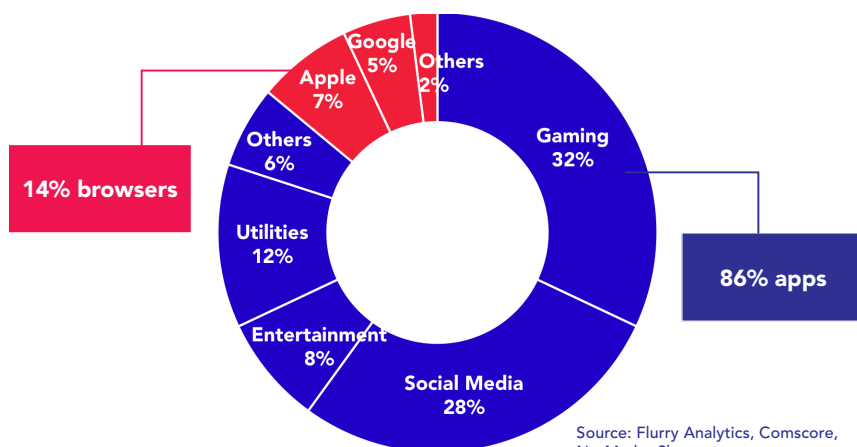ssful app[6]. When the app embodies the business for its customers, when it is a direct surrogate for the enterprise itself, its success becomes one major step in the success of the enterprise.


Google 5%
Others 2%
Apple 7%
Others 6%
14% browsers
Utilities 12%
Entertainment 8%
Gaming 32%
86% apps
Social Media 28%

Source: Flurry Analytics, Comscore, NetMarketShare

PIC 1. Mobile Now Means Apps

Most of the problems you might face when developing an app can be solved through UX research

No. of possible design alternative

Cost of change

Conception   Development   Production
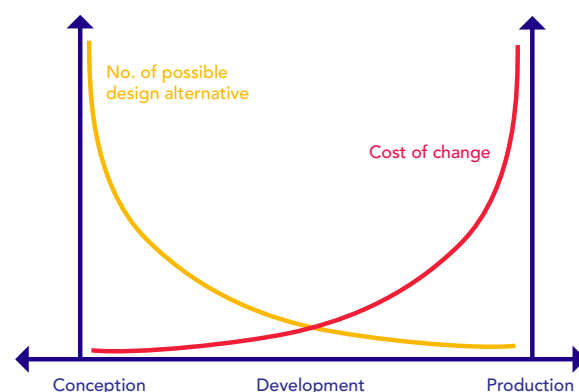
PIC 2. Usability activities help you save making changes later on when it's too expensive or too late...

App Success Depends on UX

Developing a great app is a resource intensive, costly process: serious mobile apps require a strong conceptual foundation, good planning, an excellent ecosystem and top-notch talent in both the design and engineering teams[2]. Still, excessive costs and outright failure are possible[7].
In 2013, **Avon unexpectedly terminated a $125 million software overhaul**: after trying out the system in Canada, the results showed that the iPad rollout was too difficult to use[9]...
Without incorporating learning from your users you will be forced to make choices based on uncertain gut feelings, not to mention the user impact when your decisions do not match your customers' expectations. In fact, most of the problems you might face when developing an app, will be user-related or can be solved/improved through UX research.

Software Quality

The fundament of user experience is a working system. Any crashes, errors, or bugs in software can kill the user experience. Crash reporting is essential and an analytics system like UXprobe can be very helpful in understanding how software quality impacts user satisfaction and success. Remember that **79 % of users would only retry an app once** or twice if it failed to work the first time[3].

45% of users give up if registration is hard

In a Study provided by Adaptive Path[10], Bank of America conducted research into why they were falling behind their competition. The outcome of this project was a huge success due to a drastic change in usability[9].

Performance

Bad performance (slow launching, slow to update, unresponsive User Interface - UI), is how we most often understand good/bad user experience. In the modern era, **users expect UI to always be responsive, to always show progress, be cancelable, to search instantly,** to behave well with no network. To deliver a great UX, you must deliver performance in all aspects.

Usability

Issues like **confusing language, features that are not working as expected,** non-intuitive and non-standard interactions, excessive time required to learn how to use software, input errors, poor readability, cumbersome navigation and so on **cause users to give up** on apps[7].

Relevance

The value proposition is how much users desire the product. For example, if an app is very easy to use, but provides **little or no value to the person using it, the product will have a low value proposition** and will not be used[7]. Provide a direct mechanism to collect feedback and users will guide you to create the right product.

Audience

It makes no sense to actually code your app until you're sure it meets your users' preferences, as well as their needs[2]. Use early measurement of prototypes to learn from your users what they want and need and re-validate these learnings as you progress with development. Usability activities help you save making changes later on when it's too expensive or too late[6] SEE PIC 2.

5
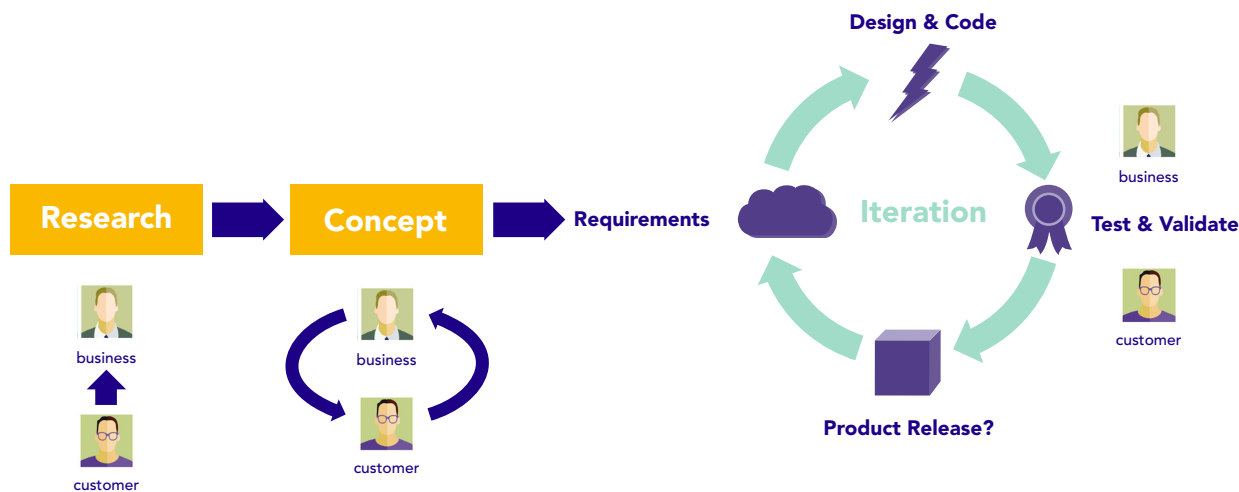
User-Centered Development Process

Take Action to Deliver a Great UX

User-Centered Design

A great user experience starts with incorporating users and what you learn from them all along your development pro-cess SEE PIC 3. Assumptions must be replaced by learnings. Understanding users' goals, performed tasks, context-of-use, education, previous knowledge will ensure that the app is valued and desired.

Along with agile development technology, we saw over the years that the number of released versions per day or week increased exponentially. To follow that speed, prod-uct teams are compelled to push out new code more and more often. If users are well incorporated in each step of development, each iteration of the app will also be able to match users' expectations. The consequence of neglecting to incorporate learnings from users along the way can result in losing out to the competition.

Usability testing

Usability testing provides insights on how well users can learn and use a product; from basic starting points to more elaborate tasks. It also takes into account their satisfaction about the experience and how they felt during the process. Typically a small group of participants is invited to a clean and pristine usability lab where they are asked to perform a set of scenarios and express their satisfaction by talk-ing out loud or by answering surveys. The reason for a small group of participants is mostly because of the cost of that type of research; costs in terms of money, time, and payed researchers involved. Although it performs well to detect the most obvious usability issues, it fails at giving an exhaustive view on all the problems that the app will still host: errors due to device characteristics like screen resolution, browser used, system and network performance, excessive time required to learn how to use software, input errors, poor readability and so on[7].

Since using a larger sample size requires a significant amount of time, adding up to significant costs and pos-sibly project delays, it is rarely performed; but without the benefit of that larger sample and its expanded view, it is dif-ficult to predict how many users will eventually experience an identified problem and therefore it is difficult to prioritize development tasks based only on usability testing.

UX Analytics collects data when users are in their natural environment

User Experience Analytics

User Experience Analytics is the path to move beyond the traditional usability lab. UX Analytics allows learning from a much larger group of users–hundreds, thousands, even millions. This bigger sample helps to predict more accurately how many users will eventually experience the same issues discovered in the lab. Moreover, geographical location has no impact anymore; it is possible to recruit literally anyone with an Internet connection.
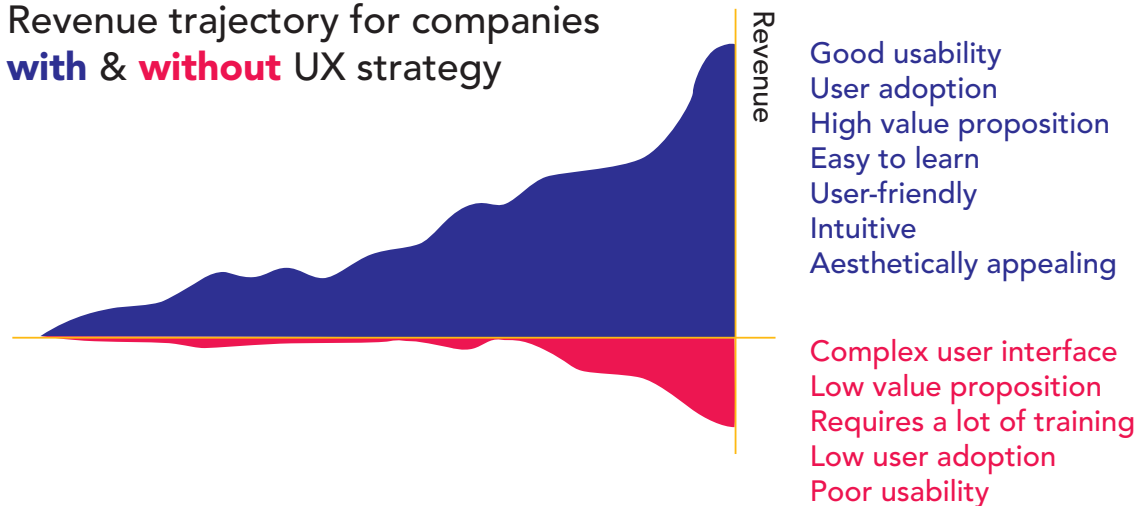
UX Analytics' strengths lie in the diversity of the types of data they can generate. It is not only about collecting large amount of data regarding task success, completion time and satisfaction rates. It is also about **gathering qualitative data**. This is possible, for example, by explicitly asking users how they felt after performing certain functionality (i.e. feedback), or by giving them the ability to express what they have in mind (i.e. survey), especially when they are experiencing trouble. Furthermore this type of **qualitative data can gain even more value if placed in a behavioral context** – what task the users were performing and whether or not they were successful.

Finally UX Analytics collects data when **users are in their natural environment** – not a confined lab space. Users are free to interact with the product when immersed in their everyday life, with the related distractions and extra noise. The data are therefore able to reflect what a real user experience is about.

That combined system of feedback and survey placed in their behavioral context, is the core of the UXprobe service. UXprobe helps measure the user experience and usability of applications. It collects user satisfaction and sentiment in a very pragmatic way by means of in-app micro-surveys and feedback panels and combines this with user behavior tracking to better understand why users feel the way they do.

7

Revenue trajectory for companies
with & **without** UX strategy

Revenue

Good usability
User adoption
High value proposition
Easy to learn
User-friendly
Intuitive
Aesthetically appealing

Complex user interface
Low value proposition
Requires a lot of training
Low user adoption
Poor usability

8

PIC 4. **Revenue trajectory for companies with & without UX strategy**

Return on investment with UX

Emphasizing UX when building an app reduces development time and maintenance costs, increases adoption and user satisfaction, and grows revenue[7]. **SEE PIC 4.**

Reduce Development Time & Costs

By listening to users and focusing on UX, either through MVPs, early usability tests or user experience metrics like UXprobe, you can find the right feature set sooner, avoid implementing unneeded and unwanted features, and avoid designs that don't work for users. 80% of the unanticipated fixes during development are issues stemming from the UI, while the remaining 20% are actual bugs[8].

As quoted by Momentum Design and according to IEEE study, "**5 to 15 % of all the development projects** that are started will be **abandoned** before or shortly after delivery due to poor usability. This amounts to **$150 billion lost**. This loss can be avoided with a user-centered design approach.[9]"

Reduce Maintenance Costs

Apps that have a bad UX will need to be reworked to be successful. If you don't have a process to find a great UX initially then all rework will have the risk of finding other bad solutions rather than the important optimal UX. Spending development budgets on reworking features that you could have gotten right the first time is a waste.

Increase User Adoption and Satisfaction

In a survey called "The Cost of Poor Customer Service"[11], Genesys found that the **global average value of lost relationships is equal to $243 per year** ($396 the UK, $339 in Australia and $330 in Canada). Losing customers is costly. Having a great UX, with high quality and the right feature set to satisfy users will result in higher user satisfaction, better app store reviews, better word of mouth promotion, higher net promoter scores, faster adoption rates and reduced costs.

Reduce Customer Support Costs

If your app prevents users from completing tasks because of low quality, confusing design or complexity of features, you will need to support them. Whether it is in support forums, emails, or live call center agents, all customer support has a cost and **every opportunity to reduce this cost directly impacts your bottom line**.

Apps with great UX smoothly deliver the services that fund your business.

Increase Revenue Growth

Apps with great UX smoothly deliver the services that fund your business. As a consequence the quality of your services is improved. Therefore increasing user adoption, satisfaction and lower support costs will also contribute to an increase in revenues.

Increase Productivity

In 2013, Avon terminated a $125 million SAP project: after trying out the system in Canada, the results showed that the **iPad rollout was too difficult to use**. One unexpected consequence was that **salespeople started to leave the company** in droves. Bad user experience is not just with your customers. Your employees also need and expect to be provided with good and functional tools. In a highly competitive talent marketplace, your employees will keep up with bad tools only for so long[9].

Optimize Opportunity Cost

How many chances will your customers give you to find the right app with the right quality and the right features? You might have only one chance before your customers are your competitors' customers. The cost of switching for your customers goes down all the time, you don't need to give them any incentive to give your competitors a try.

Good UX is estimated to add earnings to these industries:

2014
EARNINGS
BY SECTOR
according to Forrester Report[12]

+ **$1.4 Billion** Wireless Carriers
+ **$1.4 Billion** Airlines
+ **$572 Million** Retailers
+ **$494 Million** Insurers

9

All customer support has a cost and every opportunity to reduce this cost directly impacts your bottom line

How to calculate your ROI[13]

If your users can complete tasks faster with your app because of good quality, intuitive design and easy-to-find features, they will rely less on your help desk. If the number of calls to your help desk is less, this reduces costs and improves ROI.

This is **how to calculate** your Return on Investment:

$$\text{Future Gain from Improvement} = \left[\text{\#Calls to Call Center Per Year} \times \text{Call Volume Reduction\%}\right] \times \text{Average Length of Call} \times \text{Hourly Wages for Call Desk Staff} \times [(1+i)^{EPL}-1] / i - \text{Improvement Cost}*(1+i)^{EPL}$$

Total Gain from Improvement $=$ Future Gain from Improvement $/ (1+i)^{EPL}$

Annual Gain from Improvement $=$ Total Gain from Improvement $/$ EPL

Annual ROI $=$ Annual Gain from Improvement $/$ Improvement Cost

Total ROI $=$ Total Gain from Improvement $/$ Improvement Cost

where i = interest rate (assumed 0.05)
EPL = Expected Project Life (Years)
Total ROI is calculated using a discounted cash flow model

Example: Reduce support call by 25%

# of Calls to Call Center: 5,000,000 per year
Call Volume Reduction: 25%
Annual Salary: 30,000

Average Length of Call: 4 minutes (0.07 hours)
Improvement Cost: 10,000
Expected Project Life: 3 years

Future Gain from Improvement = [(5,000,000 x 0.25) x 0.07 x (30,000/1,840)] x [(1+0.05)^3-1] / 0.05 - 10,000*(1+0.05)^3 = 4,485,876
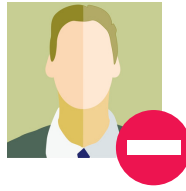
Total Gain from Improvement = 4,485,876 / (1+0.05)^3 = 3,875,069

Annual Gain from Improvement = 3,875,069 / 3 = 1,291,690

Annual ROI = 1,291,690 / 10,000 = 129 : 1

Total ROI = 3,875,069 / 10,000 = 388 :1

*Work year = 230 work days / year; 8 hours workday = 1840 hours / year

70%

of projects fail due to lack of acceptance.[6]

72%

cite effective user adoption as key[7] (vs 16% Software functionality).

PIC 5. User acceptance and user adoption are critical. Projects fail without happy users.

Conclusion

The return on investment (ROI) generated by a focused attention to User Experience (UX) – from the conception of your app through to its live support – is clear.
User adoption must be regarded as a critical key for the app's success[6]. SEE PIC 5. It is the very fundament for an app to exist.

Moreover integrating users all along the working process will provide Return on Investments (ROI) as diverse as:
- Reduced Development Time & Costs
- Reduced Maintenance Costs
- Increased User Adoption and Satisfaction
- Reduced Customer Support Costs
- Increased Revenue Growth
- Increased Productivity
- Optimized Opportunity Costs

Investing in resources and discipline to understand your customers is one of the best ways to deliver a great UX, and therefore to produce a category winning app and to run a successful business.
UXprobe will give you the means to understand your customers and the actionable insights to deliver that great app your business deserves.

References

1. **Mobile is Eating the World** (10/28/2014), by Benedict Evans http://www.slideshare.net/a16z/mobile-is-eating-the-world-40841467

2. Forbes (11/11/2014), **The True Cost of Building a Mobile App**, by Sumit Mehra http://www.forbes.com/sites/groupthink/2014/11/11/the-true-cost-of-building-a-mobile-app/

3. In the Pocket (2014), **The State of Mobile '14** https://www.inthepocket.mobi/state-of-mobile/report/

4. Compuware Study through TechCrunch (3/12/2013), **Users have Low Tolerance for Buggy Apps**, by Sarah Perez http://techcrunch.com/2013/03/12/users-have-low-tolerance-for-buggy-apps-only-16-will-try-a-failing-app-more-than-twice/

5. **IBM Point of View on Mobile Enterprise** (2/6/2014), Robert LeBlanc, Senior Vice-President of IBM Software Group https://youtu.be/ZFLLER32pQE?list=PLRrOvPN-xqYNy2rxCcMmqIGAFt70XoBCT

6. Experience Dynamics (7/24/2014), **Making a Strong Business case for the ROI of UX**, by Frank Spillers https://www.experiencedynamics.com/blog/2014/07/making-strong-business-case-roi-ux-infographic

7. ChaiOne (December 2014), **Your ROI Depends on UX - The Secret to Enterprise Software Success** http://info.chaione.com/roi-ux-white-paper

8. Strategic Data Consulting (2009). **Special report: UX business impacts and ROI**.

9. Momentum Design Lab, **Hidden Costs of Bad UX** http://momentumdesignlab.com/hidden-cost-of-bad-ux/ (infographic) http://momentumdesignlab.com/category/design/ (blog post)

10. Adaptive Path (2004), **Leveraging Business Value: How ROI Changes User Experience** http://adaptivepath.org/uploads/documents/apr-005_businessvalue.pdf Case study about Bank of America, p.15

11. Genesys (2009), **The Cost of Poor Customer Experience - The Economic Impact of the Customer Experience and Engagement in 16 Key Economies** (p.9)

12. Forrester (2014), **The Business Impact Of Customer Experience, 2014** http://resources.moxiesoft.com/rs/moxiesoft/images/Business_Impact_Of_CX_2014.pdf

13. Human Factor (2015), **ROI Calculators** http://www.humanfactors.com/coolstuff/roi.asp

We will be happy to give a live demo!

Call us +32 (0)496 52 20 39   **Send us an email** happy@uxpro.be
Check our Website www.uxpro.be   **Watch our video** https://youtu.be/ZXLh1TkRUT8
Follow us on Twitter @uxprobe   **Facebook** UXprobe Page   **Google+** UXprobe G+

uxprobe