



Universitas Ngurah Rai

# Presentasi ICEBEF

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Analysis of the Quality of QR Pay Service with Fuzzy e-ServQual Method and Importance Performance Analysis

In current banking digitalization era, bank could meet this challenge by launching a payment technology using QR code scan, that use devices owned by their customer by scanning QR code attached to the merchant.

Customer satisfaction should be prioritized which is determined by the quality of goods or services. E-ServQual intended to examine transaction accuracy, speed to solve problems online, required information easily available, and ease of accessing QR Pay.

This study aimed to analyze bank customer satisfaction level in using QR Pay service based on ServQual method integrated with Fuzzy logic. This research also identified service variables prioritized by customers by using Importance Performance Analysis (IPA). This study conducted on 69 customers of Bank QR Pay service in one Branch Office of State-Owned Enterprises bank in Balikpapan, East Kalimantan. Study result indicated that the need of QR Pay strategy improvement service that comprised of transaction accuracy, speed to solve problems online, required information easily available and ease of accessing the QR Pay



## Abstract

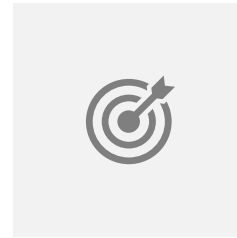
Analysis of the Quality of QR Pay Service with Fuzzy e-ServQual Method and Importance Performance Analysis



# Introduction

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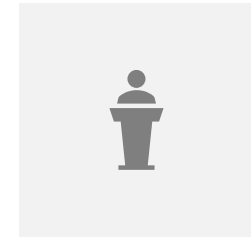
Business change is certainly occur constantly with rapid change movement.



## Business Change

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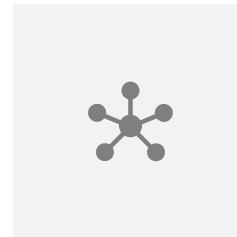
IDC → 33% will go bankrupt if not transform to digital



## Digital Transformation

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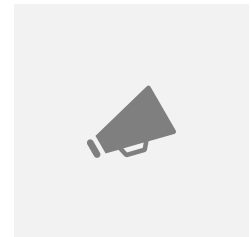
2020 → Indonesia will become the largest digital economy



## Banking Digitalization

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Must be held by Banking Industry



## QR-Pay

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QR Pay → Part of Mobile banking services

A man with a beard and a blue jacket is looking at his smartphone on a city street at night. The background is blurred with city lights.

# Method

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Research Approach  
Sample and Data Collection  
Questionnaire Design  
Measurement of Variables  
Data Analysis Technique

# Method



## Research Approach

a quantitative research to analyze bank customer satisfaction level in using QR Pay service based on ServQual method integrated with Fuzzy logic



## Sample & Data Col

69 questionnaire



## Question're Design

2 sections

1. Information section,
2. Question section that comprised of 15 questions (5 sub-part, 3 questions for each sub-part)



## Measurement of Variables

Transaction accuracy  
Interface design  
Simplicity in access  
Required information availability  
Problems Handling



## Data Analysis Technique

Fuzzy perceived and fuzzy expected analysis carried out using frequency analysis of SPSS 24 statistical tools

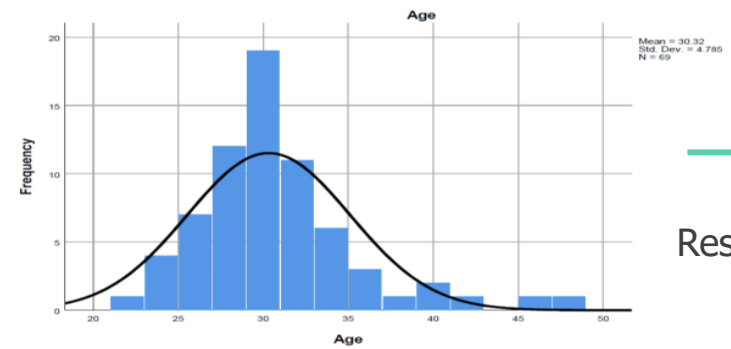


# Result & Discussion

## Descriptive Statistics

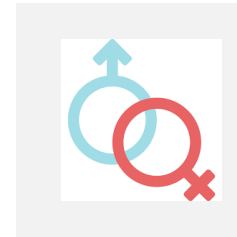
QR Pay Questionnaire Coding

Histogram



## Age

Most of the Respondent 27 -32 of age



## Gender

M → 53.6%  
F → 46.4%



## Marital Status

Single → 31.9%  
Married → 68.1%



## Education

High School → 11.6%  
Diploma → 15.9%  
Undergrad't → 72.5%



# Result & Discussion

Descriptive Statistics

QR Pay Questionnaire Coding

QRPay				
Variable	Sub Variable	Quest	Expected	Perceived
<i>Transaction Accuracy</i>				
	Transaction speed	1a	QRh1a	QRr1a
	Transaction accuracy	1b	QRh1b	QRr1b
	Transaction easiness	1c	QRh1c	QRr1c
<i>Interface design</i>				
	Functional interface	2a	QRh2a	QRr2a
	Contemporary interface	2b	QRh2b	QRr2b
	Interactive interface	2c	QRh2c	QRr2c
<i>Simplicity in access</i>				
	Fast Acces Time	3a	QRh3a	QRr3a
	The Application is easy to install	3b	QRh3b	QRr3b
	Accessible application	3c	QRh3c	QRr3c
<i>Required information availability</i>				
	Information available according to necessit	4a	QRh4a	QRr4a
	Attainable information	4b	QRh4b	QRr4b
	Too much information delivered	4c	QRh4c	QRr4c
<i>Problems handling</i>				
	Quick problems handling	5a	QRh5a	QRr5a
	Accurate problems handling	5b	QRh5b	QRr5b
	Simple problems handling	5c	QRh5c	QRr5c



# E-ServQual Analysis

Expected vs Perceived

Gap Expected vs Perceived



# E-ServQual Analysis

## Expected

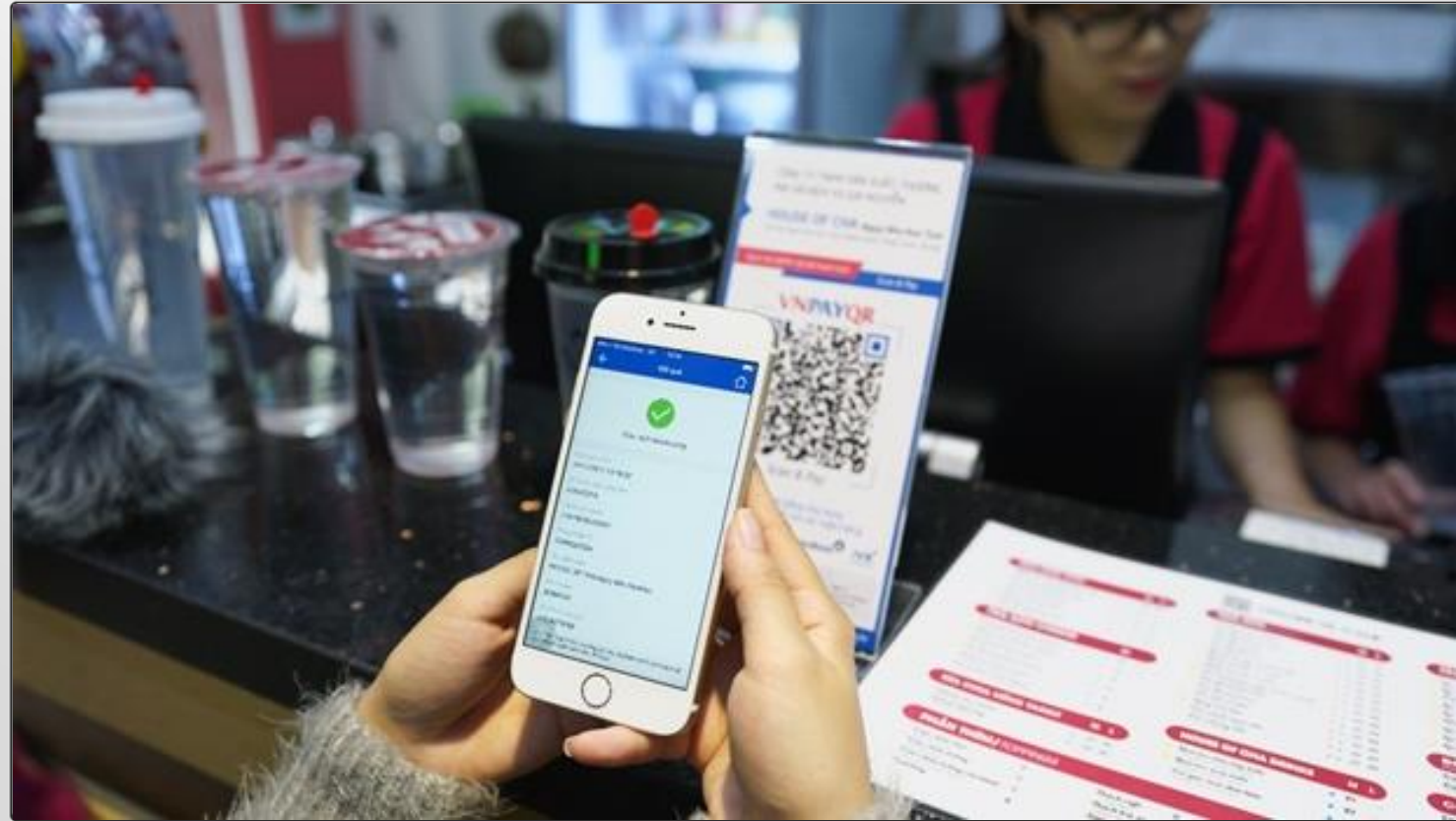
Sub Variable	Quest	Expected	Expected
Transaction easiness	1c	QRh1c	3.99
Simple problems handling	5c	QRh5c	3.99
Quick problems handling	5a	QRh5a	3.97
Transaction accuracy	1b	QRh1b	3.96
Accurate problems handling	5b	QRh5b	3.96
Transaction speed	1a	QRh1a	3.91
Attainable information	4b	QRh4b	3.91
Contemporary interface	2b	QRh2b	3.90
Information available according to necessity	4a	QRh4a	3.88
Easy to install application	3b	QRh3b	3.86
Quick access time	3a	QRh3a	3.83
Interactive interface	2c	QRh2c	3.81
Accessible application	3c	QRh3c	3.81
Functional interface	2a	QRh2a	3.74
Too much information delivered	4c	QRh4c	3.72

## Perceived

Sub Variable	Quest	Perceived	Perceived
Transaction speed	1a	QRr1a	3.26
Simple problems handling	5c	QRr5c	3.23
Functional interface	2a	QRr2a	3.22
Transaction accuracy	1b	QRr1b	3.20
Information available according to necessity	4a	QRr4a	3.20
Transaction easiness	1c	QRr1c	3.16
Quick problems handling	5a	QRr5a	3.16
Accessible application	3c	QRr3c	3.14
Contemporary interface	2b	QRr2b	3.13
Quick access time	3a	QRr3a	3.13
Easy to install application	3b	QRr3b	3.13
Accurate problems handling	5b	QRr5b	3.12
Too much information delivered	4c	QRr4c	3.10
Interactive interface	2c	QRr2c	3.09
Attainable information	4b	QRr4b	3.09

# Gap Expected vs Perceived

Sub Variable	Quest	Gap
Accurate problems handling	5b	-0.84
Transaction easiness	1c	-0.83
Attainable information	4b	-0.83
Quick problems handling	5a	-0.81
Contemporary interface	2b	-0.77
Transaction accuracy	1n	-0.75
Simple problems handling	5c	-0.75
Interactive interface	2c	-0.72
Easy to install application	3b	-0.72
Quick access time	3a	-0.70
Information available according to necessity	4a	-0.68
Accessible application	3c	-0.67
Transaction speed	1a	-0.65
Functional interface	2a	-0.52
Too much information delivered	4c	-0.12



- Based on above statistical data it could be revealed that highest fuzzy expected value was transaction easiness and simple problems handling.
- Meanwhile highest fuzzy perceived value was to too much information variable and attainable information and informative interface occupied lowest fuzzy perceived values. Based on gap analysis, three big problems should immediately handled by bank were accurate problems handling, transaction easiness and attainable information.



# Conclusion

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## Summary

# Team



**Hendra Winata**

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Penulis 1

Hendra Winata, SE, MBA

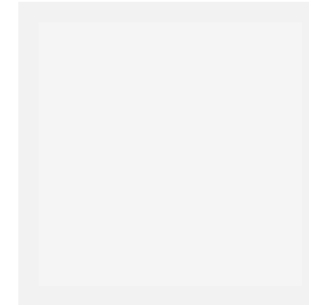


**Ade Maharini  
Adiandari**

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Penulis 2

DR Ade Maharini  
Adiandari, Ssos, MM






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# Thank You

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# Thank You

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 <http://www.unr.com/>

# Funding



Fund Category ■

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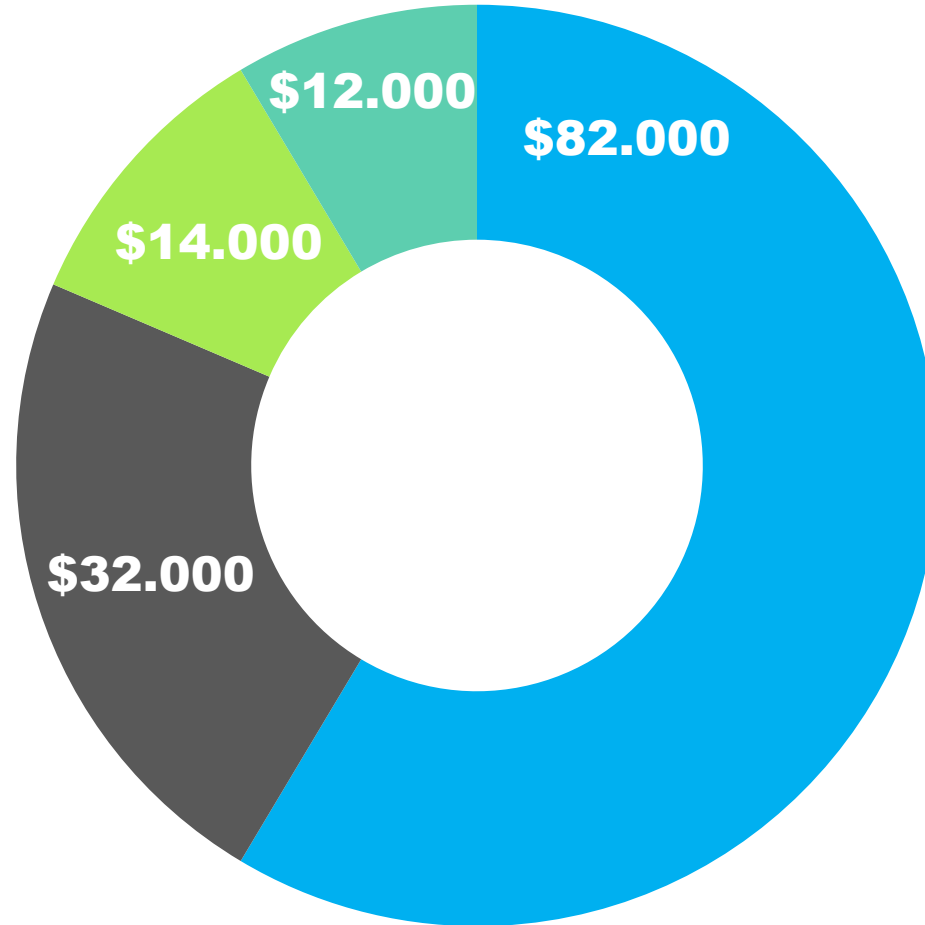
Fund Category ■

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Fund Category ■

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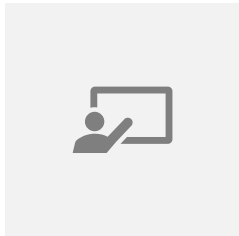


■ Fund Category

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# Business Model

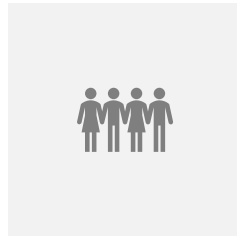
There is an opportunity for success



Fortify

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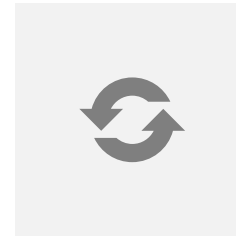
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De-Marginalize

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Recycle

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# Market Opportunity Option 1



**\$1B**

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**\$2B**

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# Market Opportunity Option 2

**\$3B**

Opportunity to Build

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**\$2B**

Freedom to Invent

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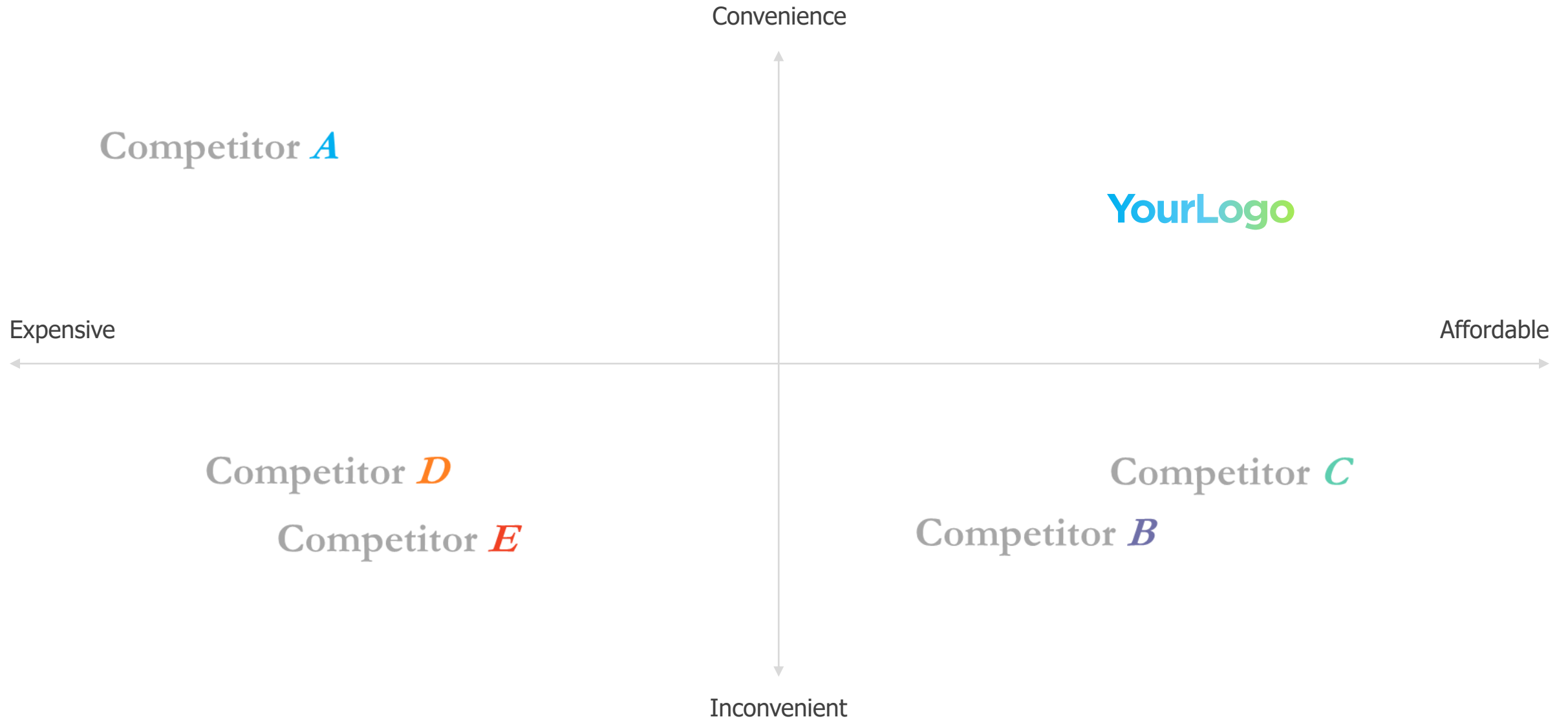
**\$1B**

Few Competitors

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# Competition Option 2



# Growth Strategy

How will we scale in the future

## Phase 1 Month, Year

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- Nunc viverra imperdiet enim. Fusce est. Vivamus a tellus.

## Phase 2 Month, Year

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- Nunc viverra imperdiet enim. Fusce est. Vivamus a tellus.

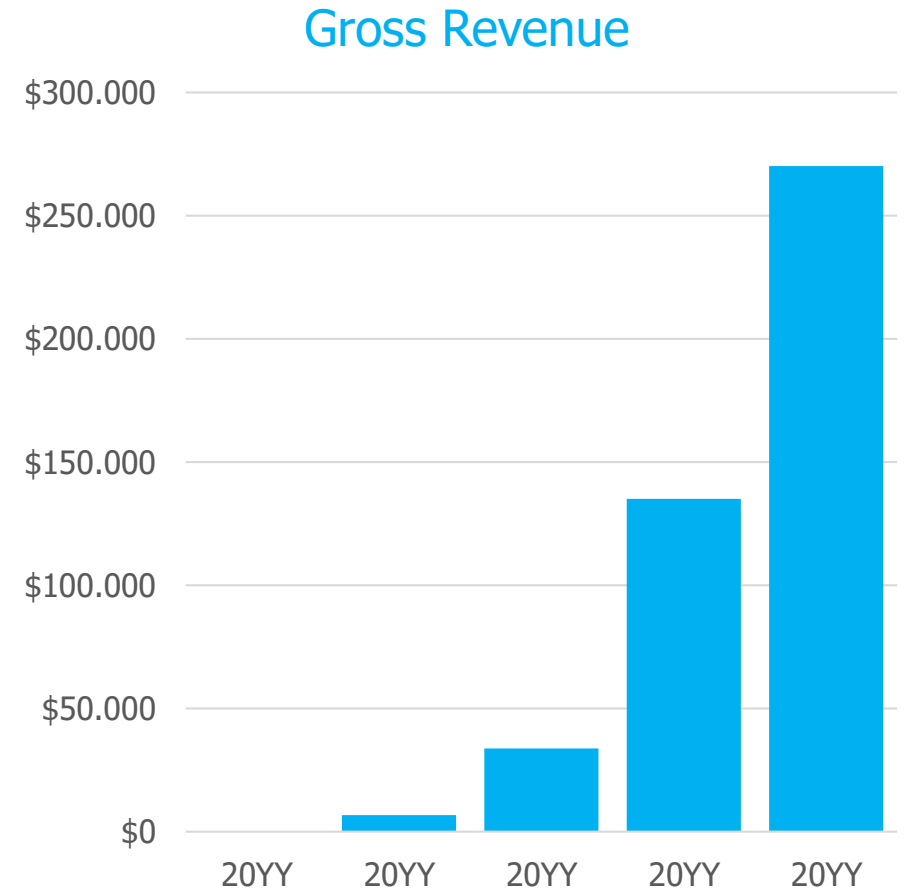
## Phase 3 Month, Year

- Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas porttitor congue massa.
- Nunc viverra imperdiet enim. Fusce est. Vivamus a tellus.

# Traction

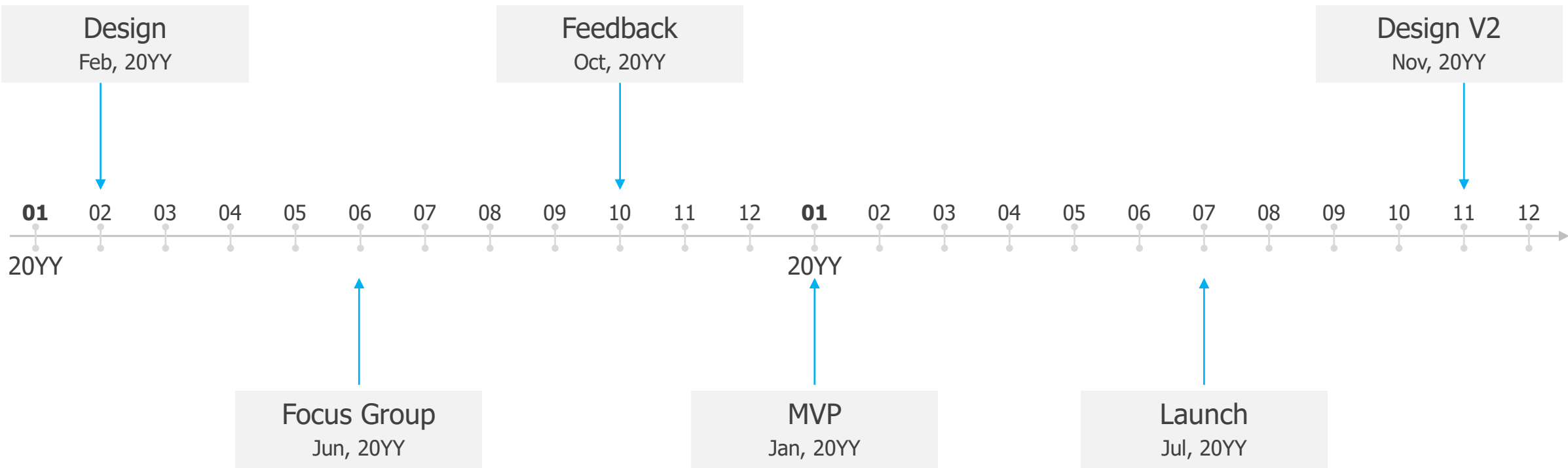
Forecasting for success

	Vendors	Users	Gross Revenue	Company Revenue
20YY	0	0	\$0	\$0
20YY	10	100	\$6,750	\$1,013
20YY	50	500	\$33,750	\$5,063
20YY	200	2000	\$135,000	\$20,250
20YY	400	4000	\$270,000	\$40,500



# Timeline

Our two-year action plan



# Financials

	Year 1	Year 2	Year 3	
Detailers	5,000	40,000	160,000	
Users	50,000	400,000	1,600,000	
Sales	500,000	4,000,000	16,000,000	
Average Price per Sale	75	80	90	
Revenue @ 15%	5,625,000	48,000,000	216,000,000	
• Cost of Revenue	0	0	0	
<b>Gross Profit</b>	<b>5,625,000</b>	<b>48,000,000</b>	<b>216 000,000</b>	
Expenses				
• Sales & Marketing	5,062,500	38,400,000	151,200,000	70%
• Customer Service	1,687,500	9,600,000	21,600,000	10%
• Product Development	562,500	2,400,000	10,800,000	5%
• Research	281,250	2,400,000	4,320,000	2%
<b>Total Expenses</b>	<b>7,593,750</b>	<b>52,800,000</b>	<b>187,920,000</b>	
<b>EBIT</b>	<b>-1,968,750</b>	<b>-4,800,000</b>	<b>28,500,000</b>	13%

# Testimonial



It was a pleasure working with  
this team

Mirjam Nilsson, Head of Marketing



No-one was ever late for a  
meeting, not even once!

Alexander Martensson, Head of Client Service



Everything worked seamlessly!

Ian Hansson, Head of Technical