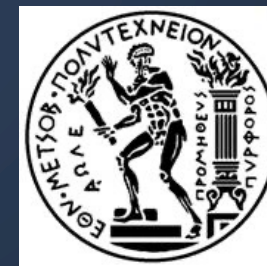


Digital Innovation and Startup Entrepreneurship

Msc Thesis of Giannadaki Anna - icsd 719006

Kontos Gerasimos, Alexopoulos Charis, Pazalos Kostantinos



UoA & NTUA
11th of March, 2022



Aviation Industry Resilience through Game Based Training and Reskilling

Gamification



Definition

the use of game design elements in non-game contexts



Applications

- Employee performance
- Innovation management
- Education
- Personal development
- Customer engagement



Game Elements

- Points
- Badges
- Leaderboards
- Quests
- Avatars

Challenges



COVID-19

- New measures
- Contactless services
- “Smarter” businesses
- Educational practices



Industry 4.0

- Transition to new processes
- Handicraft to Machines
- New software, devices

Aviation Challenges

Safety Education

- Human errors
- Aircraft emergency situations
- Virtual Reality (VR)

Training

- Up to date
- Replication of real-life situations
- Engagement



Covid-19

- Contactless services
- Minimize impact of external events
- Automation
- Digitalization needs
- Airline restructure



Skills

- Technical skills
- Problem Solving
- Risk & Safety Management
- Digital Literacy

Case Study : Airbaltic



Goal: Improving employee engagement levels in Latvia through Gamification



Airbaltic Corporation, Latvian national airline

- Crisis in 2011 → restructure in 2012-2014
- Low employee commitment (TRIM Survey by TNS), only 8% engaged
- Based on TNS Latvia and TRIM methodology, engagement is the key into commitment
- Airbaltic attempts to improve commitment scores included:
 - Annual surveys
- RESULTS: business goals and processes were insufficient
- SOLUTIONS: new tools to engage younger generations

81% under the age of 40

43% under the age of 30

Generation Z growing

AirBaltic Forecaster

- Key Points :**
1. Simple
 2. Fun
 3. Present basic project information
 4. Enable comments & Questions
 5. Reward participation

Forecaster

1

When

2014

2

Who

airBaltic

3

What

Electronic platform with simple game format and chance to win financial prizes for accurate predictions and insightful comments

4

Objective

Increase employee engagement

5

How

Through gamification employees were given projects to voice their opinion and ideas

6

Results

....



Theory Review, Game design

ACHIEVERS

Obtaining Status, Achieving Goals
Acting on the world, mastering the game
Achievements



EXPLORERS

Discovering the unknown
Interacting with the world
Element of surprise

KILLERS

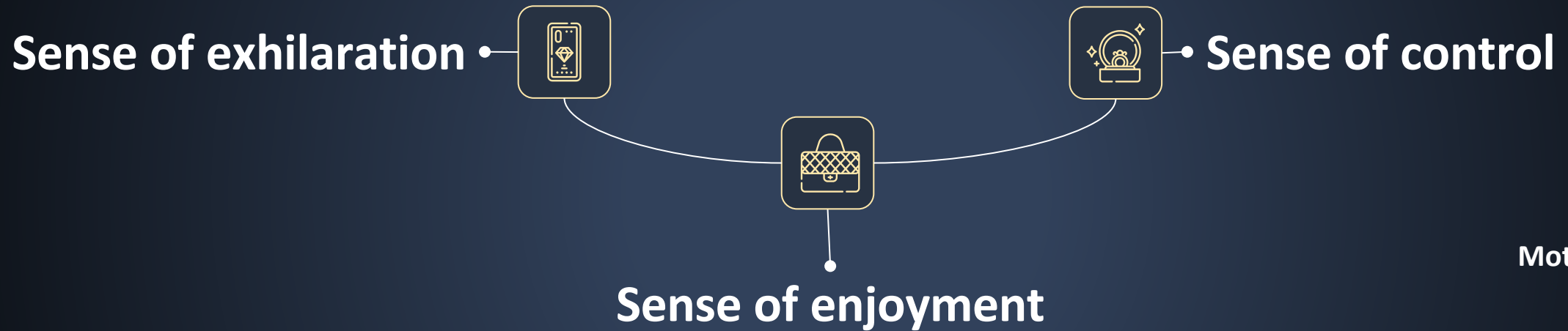
Winning
Acting on players
Leaderboards, Ranks



SOCIALIZERS

Developing networks
Interacting with people
Newsfeeds, Chats, Friends Lists

Theory of flow

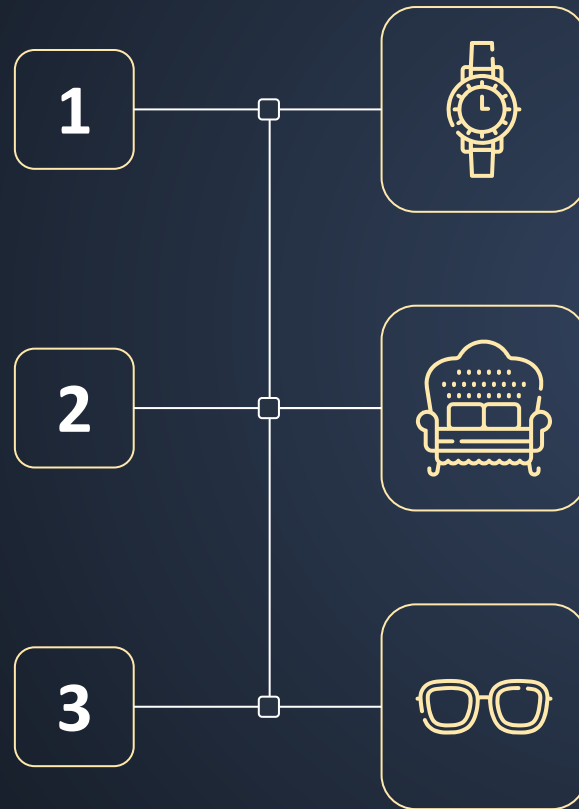


Encourage playful, exploratory behaviors → challenges

Mihaly Csikszentmihalyi

Rewards

Idea : post projects “ Forecaster Projects”



Upcoming Decisions, Goals, Ideas

Employees' voice

aiBaltic coins, virtual money

Good project ? → Buy shares
Bad project ? → Sell shares

Feedback

Season winners
Results analysis

Example Sheet

Sample Project

airBaltic

BT buses will carry over 810 passengers in August. 🚍🚍🚍🚍🚍

As of July 31st, there were total 437 BT bus bookings made for the month of August. The forecast by the Ground Handling department is that there will be 885 passengers in August. The forecast for July was 755, however only 691 passengers were booked for July which is about 9% deviation from the forecast. More information available in the Bus business case update.
<https://sharepoint.airbaltic.com/projects/prognozubir>

Project leader: Darius Viltrakis



Time left:
Active

19

Buy

17

Sell



My shares:	1
My average price:	3
Total value of my shares:	18
My investment:	3
Profit:	+15

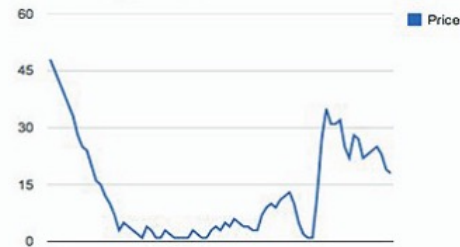
Price:

Last 24h

Last 30 deals

All deals

Price change in from start



Unique shareholders: 32, Total investments: 12686, Total profit: 0, Average price: 17, Average price of the last 3 days: 21, Lowest price: 1, Highest price: 49, Project is open
[More](#)



martinsedlacky 11.08.14 15:32

I heard we do well on passengers in Aug :-)



B757 12.08.14 14:25

Don't talk in riddles. :) Please indicate the exact data.

Trial Period, May-September 2014

1

50 Projects

2

20 Prizes, 4 per month

3

60 participants

Feedback

enjoyment, informative, more prepared, ability to decide

Over **250 participants** in the first 2 weeks

20 more new projects

Participants reached **30% of all staff**

Encouraged **discussions** through the staff

Non active players logged to get **informed** and learn about projects

More **exciting** to learn news through forecaster

High **engagement** in projects seeking for decision approval

Further **suggestions** and **improvement** ideas

March & April 2015, annual Employee commitment survey showed
5% higher employee commitment

Feedback, 6 months after

Win-Win Situation



Unique insights

- Prevention of bad decisions
- Prediction of failure or success
- New revenue models



Knowledge

- Learning about projects in other departments
- Better overview of the organisation



Communication

- Engagement within the company
- Interaction in the decision-making process



Goal identification

- Target to achieve

Steps to an effective business game



**Business goal
identification**



Objective



Users



Context & Culture



**Game & Game
Elements design**



**Measurement
plan**



**Implementation,
communication
of the plan**



Game monitor

Findings & Results

- Most of the employees signed, BUT 90 active out of 327 signed, 10% of the company. Mostly financial employees and analysts
- Fresh way of thinking
- Internal communication
- Difficult sustainability of the projects
 - Interviews and Conclusions
 - Decrease the turnover
 - Increase productivity
 - Employees liked the idea of participating in decision making
 - Getting to know the users
 - Increased engagement

Improvements

Crucial Points

- Closer low employee engagement
- Consider other solutions
- Resources
- Information tool
- Scale up
- New enhanced Version
- Employees involved in management
- Attract young generation

Questions

- Design, in house or outsourced?
- Quick fixes or redesign?

Gamification

- Attention, Support & Time
- Is the Future
- Keep up with changes
- Invest in recruiting the best & train them to be better



Thank you!