Appendices

DESIGN FOR our future

TU Delft

IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

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Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy".
Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name	Jiang
initials	Y
given name	Yuxiang (Charles)
student number	5153352
street & no.	
zipcode & city	
country	The Netherlands
phone	
email	

Your master programme (only select the options that apply to you):

IDE master(s): ( ) IPD ( ) DfI (★) SPD

2nd non-IDE master:

individual programme: - - (give date of approval)

honours programme: ( ) Honours Programme Master

specialisation / annotation: ( ) Medisign ( ) Tech. in Sustainable Design ( ) Entrepeneurship

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	Prof. dr. Snelders, H.M.J.J.	dept. / section:	DOS
** mentor	Prof. dr. Hultink, H.J.	dept. / section:	DOS
2nd mentor			
organisation:			
city:		country:	

comments (optional): The expertises needed for this graduation project (innovation and organisation) can only be found in the department Design, Organisation and Strategy.

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..

Second mentor only applies in case the assignment is hosted by an external organisation.

Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair Prof. dr. Snelders, H.M.J.J. date 24 - 02 - 2023 signature

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: 36 EC

Of which, taking the conditional requirements into account, can be part of the exam programme 30 EC

List of electives obtained before the third semester without approval of the BoE

★ YES all 1st year master courses passed

○ NO missing 1st year master courses are:

name Robin den Braber date 09 - 03 - 2023 signature

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: ★ APPROVED ○ NOT APPROVED

Procedure: ★ APPROVED ○ NOT APPROVED

Remark: Mr. Bluemink will discuss with the chair the unclear problem definition and the assignment (not concrete enough)

comments

name Monique von Morgen date 21 - 03 - 2023 signature

Initials & Name Y Jiang 6315 Student number 5153352

Title of Project Facilitating Design Thinking & Lean Startup Adoption In A Large-Scale Agile Organisation

Facilitating Design Thinking & Lean Startup Adoption In A Large-Scale Agil project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 08 - 03 - 2021 19 - 04 - 2023 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

Organisations need to transform to be more innovative in response to the ever-changing world. With tech companies bringing disruption to many traditional industries, more and more established companies felt the urgency to step up their innovation game. The large European financial institution being studied for this project is no different. To stimulate their innovation throughout the company, they decided to adopt Design Thinking and Lean Startup (DT & LS) in the daily work of their employees.

DT & LS encourages rapid launch of customer-validated new products and services developed by small, autonomous, cross-disciplinary teams. It also ensures the company follows a common process and terminology globally and only deploys resources when they are certain its innovation will make the life of customers better.

The adoption of DT & LS refers to a more frequent application of DT & LS methodology in the daily job of employees. Several initiatives have been rolled out in this regard: Among others, there is an online training programme for the basic knowledge of DT & LS; and the adoption progress has been monitored by different metrics; moreover, there are DT & LS Coaches across different business units who provide guidance and coaching to the employees on DT & LS methodology.

Despite the ongoing efforts within the company to facilitate the DT & LS adoption, the adoption remains on a low level. The low level of adoption is directly shown by the results of the different metrics. And the DT & LS Coaches constantly get requests for coaching despite their limited capacity. It is obvious that there are certain barriers around DT & LS adoption for certain employees and their team.

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introduction (continued): space for images

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image / figure 1:

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image / figure 2:

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

The assignment is described as follows:

How can a design intervention help the Employees of a financial institution to better adopt Design Thinking and Lean Startup by boosting the application of DT & LS in their daily job?

To achieve this assignment, the following questions need to be answered with research:
RQ1: How is DT & LS currently being applied at the compnay?
RQ2: What are the key barriers and drivers to applying DT & LS?

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

A set of (service) design directions will be given for the better and more frequent utilisation of Design Thinking and Lean Startup among employees of this company.

The form of proposed design directions is to be decided, but one or more of the following outcomes can be expected:
- Creative workshop setup & workbook;
- Toolkit & canvas;
- Serious game set;
- Displayed artifact, e.g., poster;
- Repertoire of actions;
- Strategy;
- ...

Initials & Name Y Jiang 6315 Student number 5153352

Title of Project Facilitating Design Thinking & Lean Startup Adoption In A Large-Scale Agile Organisation

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 8 - 3 - 2021 19 - 4 - 2023 end date

Original planning

Start Week	Mar 8, 2021

	Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Starting	Mar 8	Mar 15	Mar 22	Mar 29	Apr 5	Apr 12	Apr 19	Apr 26	May 3	May 10	May 17	May 24	May 31	Jun 7	Jun 14	Jun 21	Jun 28	Jul 5	Jul 12	Jul 19	Jul 26
Meeting	Han van der Meer (Wed Morning 10AM)	KO									MT								GL			GC
	Fernando Secomandi (Wed Afternoon 3PM)																					
	ING (Fri Morning 10AM)																					
	Research																					
	Design																					
	Validation																					
	Finalization																					

Revised planning final stage

Start Week	Feb 13, 2023

Week	1	2	3	4	5	6	7	8	9	10
Starting	Feb 13	Feb 20	Feb 27	Mar 6	Mar 13	Mar 20	Mar 27	Apr 3	Apr 10	Apr 17
Milestone meetings						GL				GC
Research										
Design										
Finalization										

Greenlight meeting: March 20
Graduation ceremony: April 19

Initials & Name Y Jiang 6315 Student number 5153352

Title of Project Facilitating Design Thinking & Lean Startup Adoption In A Large-Scale Agile Organisation

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, ... Stick to no more than five ambitions.

For the final stage of the project, the motivation and personal ambitions have also been adjusted in line with the new planning and expectations.

In the remaining weeks of the new planning, I strive to work productively on the project while recovering from the illness. I'll use the short time to focus on finalising the project by completing the information collected previously and integrating it into a result that is sufficient for graduation.

I would also like to dedicate small part of the planning and the thesis report to reflecting on what I've learned from this journey: what happened, and what learnings and skills can be beneficial to my future professional career and personal life.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

B. Findings from existing internal research & metrics

Status quo of DTLSA: Long way to go

GFI is a global corporation with subdivisions around the world, and each division has different DTLSA maturity. Therefore, the DTLSA status quo will be addressed on 3 levels: Global, Regional Leader, and the rest of GFI. To describe and compare different levels under the same measurement, the ideal scenario where DTLSA is fully adopted by every employee and team at GFI is defined as 100%.

On average, the DTLSA usage at GFI is currently at a low level. On the global level, the latest Maturity Survey result suggested that 28% of the most relevant Business Clusters have been applying DTLSA. Specifically at Regional Leader of GFI, the DTLSA maturity is lower than the global average. In the MSA result, Regional Leader scored around 10% on the percentage of "most relevant Business Clusters apply DTLSA". And on the latest result of the CX Metric where the teams in Regional Leader scored an averagely of 1 out of 5 (lowest bar) for the categories of "Apply DTLSA", showing that very few teams are actually applying DTLSA tools and canvases when relevant, and a low score of 2 out of 5 for "Validate problems & needs" and "Validate solutions/experiment".

Next to the maturity of DTLSA on different levels, the perceived value of experimentation by GFI employees were also found: 1) Focus on value; 2) Risk mitigation; 3) Team alignment; 4) Intrinsic benefits.

Barriers and enablers for DTLSA adoption

One of the common conclusions across different internal researches and metrics was that there were multiple barriers and enablers at play for DTLSA adoption to different extents. The factors below were discovered in the existing internal research and metrics, which were presented with the levels and themes from the literature:

Table 1: Factors of influence from the prior internal research for the adoption of DTLSA.

Factor of influence	±	Explanation
Organisational level		
Lack of strategic priority, support, or time	-	The most common barrier observed. Priority was often given to delivery of a solution or other tasks, such as migration or cost saving, instead of experiments, problem investigation, or impact measurement.
Theme: Leadership and management		

No support from within the Business Cluster	-	The lack of Business Cluster management support and lack of knowledge and interest for DTLSA in the Business Cluster.
Increase leadership support and proactivity	+	Leadership should start asking for experiment results and measuring teams impact based on outcomes rather than outputs, and furthermore helping the formation of self-sufficient teams.
Theme: Organisational interventions		
Dedicated team or centre of excellence	+	Organisations cannot expect large and sustainable impact from DTLSA when their efforts around training and infrastructure are not organised from one dedicated team or centre of excellence that builds infrastructure, trains people and facilitates DTLSA adoption.
Education & sharing learnings	+	(Better) education effort on DTLSA to help arrive at a shared understanding and knowledge. Sharing learnings of DTLSA across the organisation (e.g., internal newsletter or internal database of past learnings) can promote the use of DTLSA and show the values of DTLSA.
Team level		
Theme: Team autonomy		
Dependencies	-	DTLSA activities usually involve different job functions, therefore it will be a problem when the certain functions (e.g. Data Analyst or UX Designer) become overwhelmed or not integrated in the team.
Lack of adoption plan	-	The practical knowledge of how to put DTLSA in motion such as "where to find a project" or "who should be on the team" is missing. More teams are discussing rather than executing DTLSA activities.
Different competency across CESs	-	The "average" CES is not yet at the expected data-driven and DTLSA expertise level.
Theme: Team engagement		
Inactivity of IT functions	-	IT personnel not participating in the DTLSA activities due to misconceptions or lack of definition for their involvement.
DTLSA level		
Risk & legal compliance	-	The extensive requirements and policies related to risk and legal compliance can be time consuming and significantly slow down DTLSA activities.
Lack of tooling	-	Missing or broken functionality in the current infrastructure for DTLSA. (e.g., experiment metrics)
Integrated tool	+	Tooling for DTLSA should be easily accessible and plug-and-play.
Theme: Perceived characteristics of DTLSA		
Wrong perception of DTLSA & Not knowing the value of DTLSA	-	Misconceptions such as "DTLSA is too big/irrelevant/not allowed for my work" are harmful for the adoption of DTLSA.

DTLSA vs Experimentation

Among the 5 researches and metrics that were looked into, 1 research was specifically focused on the experimentation part of DTLSA, while the rest were covering DTLSA adoption in general. The comparisons between these 2 types of research shows that on both status quo (RQ1) and barriers (RQ2) sides, the specification did not cause a drastically different result. All the research painted a coherent picture of DTLSA adoption at GFI and shared largely the same set of barriers as their conclusion.

C. Group session findings

Status quo of DTLSA

Due to the fact that the participants of the session belonged to different business units globally, their average impression on the status quo of DTLSA at GFI naturally represented the global level. DTLSA Coaches rated the current situation of DTLSA, compared to the ideal situation where DTLSA were 100% embedded in GFI, as around 35% (Figure 2), which is close to what the latest Maturity Survey result suggested, globally, 28% of the most relevant Business Clusters have been applying DTLSA.

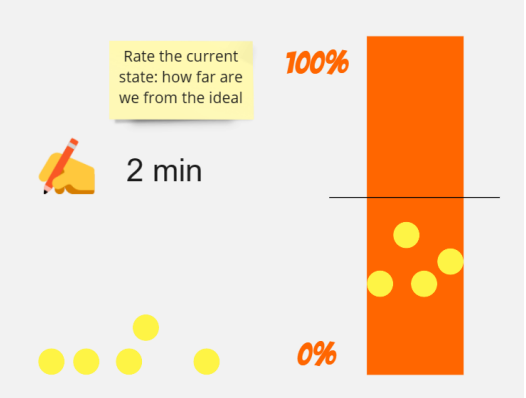

Figure 2: DTLSA Coaches rating the status quo.

Barriers and enablers for DTLSA adoption

The factors below were discovered in the group session, which were presented with the levels and themes from the literature:

Table 2: Factors of influence from the group session for the adoption of DTLSA.

Factor of influence	±	Quotes from Post-its
Organisational level		
Theme: Organisational culture and structure		
Lack of mindset	-	- Not questioning enough - mindset
Universal language	+	- 100% of GFI employees will understand the basic vocabulary of DTLSA and CX. - When DTLSA is fully integrated... we will move with one innovation language, one shared vision of customer centricity.
Shared vision	+	- When DTLSA is fully integrated... we will move with one innovation language, one shared vision of customer centricity.
Scaling DTLSA	-	- we have pockets of maturity but are still finding ways to scale
Theme: Leadership and management		
Lack of leadership support	-	- Lack of incentives or requirements to really put it in practice
Leadership commitment and	+	- leadership will understand the value of innovation for their strategy. ask for evidence, allocate resources for experiments,

asking "What is your evidence?"		- support and engage in a 'What is your evidence?' culture - More focus on managers to apply DTLSA and give time for applying
Theme: Organisational interventions		
Mandatoriness	+	- Making DTLSA mandatory for new products and features - Creating a DTLSA metric and setting KPIs
Resources	+	- Creating budgets for experiments
Training	+	- DTLSA Online Training is really a good initiative - Intense upskilling through training - like a muscle you need to train
Train the trainer	+	- give a train the trainer to facilitators would be also nice - Developing our knowledge and skills – via experts
Career incentives	+	- Include DTLSA maturity/capabilities in the career development plan - Setting a metric to measure DTLSA competency
Spreading the expertise and responsibility	+	- No more DTLSA Coaches, but different roles, e.g. Experience Designers, CX Agents or Consultants etc.
Team level		
Theme: Team autonomy		
Lack of time and priority	-	- Deadlines and day-to-day business pressure - Lack of budget and time for experiments - CX falls of the plate first, when things get tight
Lack of practical know-how	-	- if they have no experience, they don't know where and how to start - Lack of knowledge or understanding about how to practically apply it and when
DTLSA level		
Lack of tools and infrastructure	-	- lack of tools & how to use them (e.g. for experimentation) - lack of data/ data very hard & time-consuming to access
Tooling & infrastructure	+	- maybe have a CJ mapping tool that everyone is working with - the access to clients is fast & easy (maybe through a panel or something similar) - Global set of tools and resources for collaborative work, research and experimentation - Having all innovation materials in one place – innovation pool (best practices, experiment examples, training decks etc.)
Risk & legal procedures	-	- Risk - no direct talking to customers
Theme: Perceived characteristics of DTLSA		
Clarity on value of DTLSA	+	- seeing results of experiments that worked out (feeling of getting the drill and seeing the value) - When IT effort or other cost of implementation is high - When they are questioning the value of idea - When they realise they have too much assumptions

		- Everyone will have clarity about when customer research and validation is crucial - Their belief on they know enough via experience
Theme: Design Thinking		
Customer interaction	+	- direct customer interaction/ feedback (e.g. through doing interviews themselves) - Close contact to customers and learn directly from them - They enjoy talking to customers, gaining insights, defining problems
Creativity	+	- many people enjoy the creative parts of the methodology, like ideation (getting away from pure delivery) - Thinking of new ideas and trying them in a real environment - ideating solutions - Ambiguity about answers
Theme: Lean Startup		
Evidence based decision	+	- All customer-related decisions based on facts, not gut feeling, not purely on opinions of leaders - Prioritization of epics/features and decision-making based on desirability, viability and feasibility
Individual level		
Theme: Individual characteristics		
Personality traits	-	- some people are also scared to put themselves and their work out their in front of real customers - Do not feel comfortable about talking to customers

D. Key informant interview findings

Status quo of DTLSA

The key informant (K1) mentioned that he estimated around 10% of the teams in GFI experiment regularly.

Barriers and enablers for DTLSA adoption

The factors below were discovered in the key informant interview, which were presented with the levels and themes from the literature and explanation from K1:

Table 3: Factors of influence from the key informant interview for the adoption of DTLSA.

Factor of influence	±	Explanation
Organisational level		
Theme: Organisational culture and structure		
Lack of ambition for GFI	-	Ambition, by the definition of Cambridge dictionary (*AMBITION | English Meaning - Cambridge Dictionary*, n.d.), means a strong wish to achieve something. Here specifically it refers to the wish to make GFI stand out among the competition. Ambitions like "GFI should deliver the best product in the world" are possibly lacking at GFI. If the working philosophy in the company is just "keeping up with the rest of the world", then the operation can easily fall into targeting delivery instead of impact, which is not a good condition for DTLSA. For example "we should release xxx feature because (one of the competition) is doing it."
No urgency for DTLSA	-	In the research conducted by K1, certain participants expressed very indifferent attitudes when asked "What if we don't improve the level of experimentation within GFI?", saying that maybe there wasn't a real urgency within GFI to do so. It demands a lot of effort for GFI to make experimentation a new way of working, considering the current low execution state, and the low urgency is certainly not going to help.
Lack of (shared) vision	-	Albeit all the ongoing effort within GFI on promoting experimentation, there hasn't been a concrete vision that demonstrates a numerical goal or the end of this transformation communicated from the management or formulated democratically by the employees themselves.
DTLSA level		
Less than optimal toolings	-	Due to the security nature of financial institutions, choices of experimentation tools are restricted and most of the tools have to be developed internally. However, the development of the toolings has stalled in recent years. There have also been complaints that the tools are not easy to use.

Small assignments	+	Giving out small assignments that don't feel like an extensive amount of effort next to the daily work for teams just starting out with DTLSA can be great. It helps in proving them the value of DTLSA and formulate the plan needed for their first experiment. The assignments can be about looking at potential problems suitable to solve, defining success of the experiment, and its measurement.

E. Survey findings

The survey results are structured under 3 parts: respondents overview, results that answer RQ1, and results that answer RQ2.

Respondents overview

Among all the invited employees through email, we received 73 valid responses, which leads to 8.4% response rate. The composition of the respondents can be found in the figure below. Verified by a knowledgeable source within GFI, the response rate is comparable to other surveys carried out in GFI, and the survey respondents fairly represent the Business Clusters and job functions across GFI.

Status quo of DTLSA

Following a similar structure as Empirical results, this part of the quantitative results will start with the numbers on execution of experimentation to give an overview, then further investigate the understanding, perception, motivation, knowledge, etc. of experimentation at GFI. And finally the insights from the 3 stage growth model and function & team perspective, such as DTLSA mindset and function differences, will be examined.

1. Poor execution

The execution of experiments (data of which can be found in Figure) is not ideal. When asked to specify the frequency of themselves or their team executing experiments, around half of the respondents indicated that they execute less often than once every 6 months, which should count as regular execution and is far from the vision statement. Only 10% of the respondents displayed the ideal experimentation maturity and cooperated experimentation in their daily job by conducting experiments every sprint, which is in line with the DTLSA maturity result from the empirical study. The rest of the respondents lied somewhere in the middle of these 2 situations.

2. Sufficient yet different understanding

At GFI, an experiment is defined as "a test observing how customers react in order to validate (or invalidate) business assumptions." The table below shows the results from the survey respondents on the multi-choice question on their definition of experimentation. The vast majority of respondents selected the standard definition of experimentation, showing a decent basic understanding on experimentation, while certain less legitimate options, such as "asking colleagues what they think about an idea", were also selected by a number of respondents. It's safe to conclude that, despite

the default definition being accepted by most of the GFI employees, experimentation can still mean different things to different people.

Table 4: Definition & application of experimentation at GFI

Experimentation concept	**Partic. (%)**
Observing customers reaction to (in)validate assumptions	88%
Quickly test something before committing to building it completely	79%
A/B testing	79%
Trying out something new	77%
Learning what works	77%
Developing a hypothesis	62%
Interviewing the target audience	52%
Incremental improvements	51%
Working with the DTLSA canvases	38%
Asking colleagues what they think about an idea	34%
Changing a webpage of GFI	21%
De-risking a project	18%

3. Positive perception

The majority of the respondents perceive experimentation positively. All the statements stemmed from assumed negative perception, such as "Experimentation means more unnecessary workload for my job.", and "I don't see how experimentation can help me do my job better.", were disapproved by the majority (69.4%, 83.3%) of the respondents. Furthermore, the majority of the respondents agree that more frequent experimentation will lead to a better future for GFI (75%). The survey showed that most of the respondents believe that experimentation is beneficial and the right thing to do at GFI.

4. Good motivation, no excuses

The survey showed good motivation among respondents for DTLSA. A direct evidence for that would be that, even though the experimentation vision statement is unrelatable to some (with only 46% of the respondents explicitly relating to it personally), 64% of the respondents are motivated enough to contribute to it.

On top of that, there are also:

- 80% of the respondents of all the job functions believe that experimentation is part of their job.

- 75% of the respondents who work with internal stakeholders and clients believe that the lack of external customers does not mean experiments are irrelevant to them.
- 70% of the respondents agree that their scope of work allows them to conduct experiments.

These statements all stemmed from common misconceptions of DTLSA or excuses for not adopting DTLSA. To have them invalidated by a big portion of the respondents shows a good initiative from across different functions within GFI.

5. More than sufficient prerequisite: basic knowledge & internal discussion

For a team to collectively execute experimentation, members of the team taking training to receive basic knowledge on the topic and the team having internal meetings on experimentation are 2 of the important prerequisites, based on the 3-stage growth model in the empirical result.

In the survey, 76% of the respondents indicated that discussions around experimentation have occurred to their team, showing not only good awareness level but also a high collective interest for the experimentation adoption.

65% of the respondents have taken training for experimentation. The majority of respondents (63%) believes they have the skills and knowledge to perform experimentation. A similar number of respondents (60%) are confident enough to experiment. These illustrate that the practical skills for experimentation at GFI are on a good level.

In combination, more than half of the respondents have taken some form of training for experimentation and are aware of the team discussion around DTLSA experimentation. And only less than 15% of the respondents suggested negatively on both prerequisites. These indicate a positive existence of prerequisite for experimentation among respondents and their team. The table below analyses the influence of these 2 prerequisites on executing experimentation. It confirms that both factors positively influence the execution of experimentation. And it seems to be unlikely for a team to execute experimentation without having any discussions within the team. Therefore, training and team discussion can be very interesting touchpoints for the design intervention.

Table 5: Analysis on the influence of experimentation training and in-team discussion on experimentation as prerequisite (✔ = Execute experiments at least once a quarter; X = Execute experiments less frequent than once a quarter)

		Training	
		Y	N
Discussion	Y	27 ✔ / 13 X	9 ✔ / 7 X
	N	1 ✔ / 6 X	1 ✔ / 9 X

6. Flexible mindset

It was discovered in empirical research that a team with a higher maturity level of DTLSA is more likely to have a certain proactive and experimental mindset. In the survey, "I feel very frustrated when my idea or assumption is proved to be wrong." scored fairly low with 74% of the respondents disagreeing with it. It shows that the professional personality at GFI is on average flexible and not too attached to their own ideas, which provides a very nice ground for experimentation to flourish.

7. DTLSA for different functions

In empirical results, it was discovered that different job functions deal with different challenges in regards to DTLSA. And that has also been confirmed in the survey.

Customer Experience Specialists: some of the CESs are feeling out of place

41 respondents of the survey are CES, which is a more than sufficient set of samples to look into this group. In its name, CES has the expectation from GFI to bring in the customer's perspective and lead the transformation. The survey showed that this expectation didn't go unnoticed. 90% of the CESs themselves also agree to different extents that experimentation is indeed part of their job. 93% of the CESs are convinced that experiments can help them do their job better. 85% of the CESs have taken training on experimentation. And despite all the barriers discussed before, 33% of the CES respondents already tried to convince their team to execute more experiments. The spirit of CESs for experimentation is no doubt very high.

But when it comes to practicalities of experimentation, there is always a part of CESs that feel out of place. 44% of the CESs don't know how their work will change with more frequent experimentation. 37% of the CESs are not certain about where to start with experimentation. 20% of the CESs still have trouble locating tooling and support for experimentation. 27% of CESs don't necessarily see themselves taking the lead to a future with more experimentation for the team. These showed that the question of why, what, and how on leading this transformation still needs to be spelled out to not a small group of CESs. It comes as no surprise though, knowing that CES being the job title that covers a large number of GFI employees with vastly diverse backgrounds, and leading a team towards a new way of working is never an easy feat.

IT Engineers have a more distant relationship with experimentation

Within the small sample (N=9), IT seems to have a more distant relationship compared to CES and DA, which is in line with the result of interviews. For example, 44% of them feel less than confident to perform experiments. 44% of the IT Engineers think that their job is not involved in experimentation, and even more of them are unaware of where to find tooling and support or how to start with experimentation.

Data Analysts: potential alliance

Within the small amount of sample (N=12), DA seems to have a much closer relationship with experimentation, which is something new compared to the interview result. 92% of

them think experimentation can help them perform their job better. And another 92% of them admit that they have the skills and knowledge to experiment. 75% of them agree that it is within their job to get involved in experimentation. And 33% of them tried to convince their team/Business Cluster leadership to do more with experimentation. These results, which are almost at the same level as CESs, suggest DAs to be a good potential alliance on promoting experimentation with CESs.

Barriers and enablers for DTLSA adoption [TBR]

The survey quantitatively validated a few key barriers that existed on a mass scale among the respondents. Albeit not being one of the prominent barriers, the ambition related assumptions under the category of purpose don't completely share the likert scale like the rest of the group, so it calls for a stand alone analysis.

Ambition for GFI

The ambition level at GFI is not without room for improvement, but on average good.

2 questions in the survey directly addressed ambition level. One of the ambition-related questions and its results can be found in the figure below. The result suggests that the respondents have a good level of ambition for GFI. 95% of the respondents are on board with delivering high quality products on certain levels. 62% of the respondents are in favour of competing on the global level, rather than the BeNeLux region, with the biggest segment (40%) out of all divisions aiming at global competition within the financial industry. The majority of respondents (61%) sees it being more important to outrun the direct competitors from the financial industry rather than competitors from all industries that currently might not be directly involved in GFI's forte. Similarly, the results regarding the 2 statements in the other ambition-related question (1.67/4 and 1.30/4 respectively) suggest that respondents on average are between disapproving and neutral towards the display of low ambition.

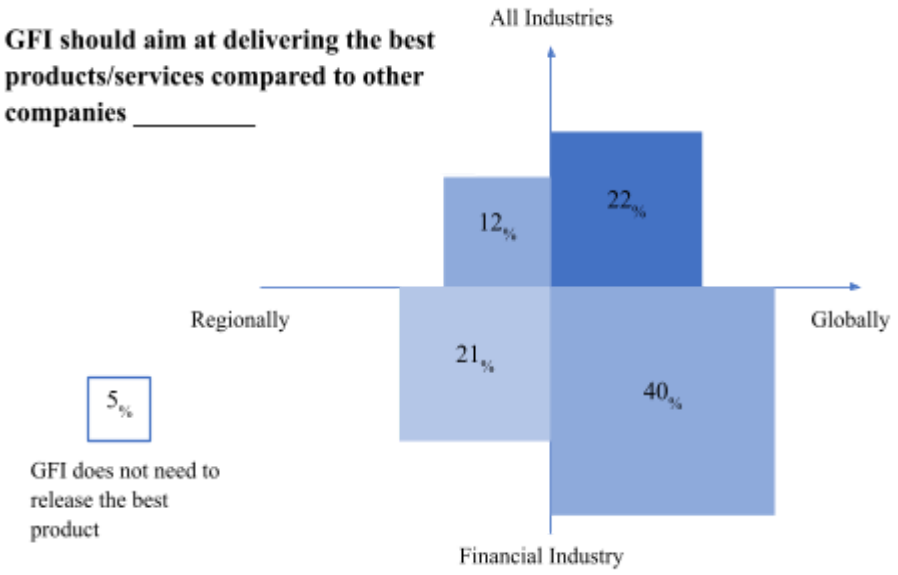

Figure 2: Result of a question about the ambition level of respondents for GFI

Prominent barriers

In the survey results, most of the statements that scored high clustered around certain problems, pointing to a few prominent barriers (see Table 3).

Table 3: Prominent barriers

#	Category	Problem
1	Strategy	Incompatible strategy and policies for DTLSA
2	Structure	Lack of middle management support
3	Process	Unclarity on vision and action plan on the team and individual level
4	Infrastructure	Less than optimal tooling

A. Incompatible strategy and policies for DTLSA

The lack of priority in corporate strategy and top management is the most pressing issue for experimentation discovered in this survey. 44% of the respondents agreed that at GFI the priority has been given to things other than executing experiments, such as migration projects, releasing features and campaigns, cost saving, etc.

It is an issue on the corporate strategy level that was echoed by quite a few other aspects as a result. Besides other consequences such as experimentation not being favoured by the current reward system at GFI which will be discussed later, one of the direct consequences to the lack of priority given to experimentation is limited time and resources allocated to experimentation. 55% of the respondents think that they were not given enough time, budget or priority for experimentation. Among 55 responses to the open questions about barriers for experimentation, 42% of them talked about the limitation of time for experimentation.

The reward system at GFI mostly rewards teams and employees on delivery on time rather than optimising the impact of the existing ones, as is agreed by 44% of the respondents. And the (Business Cluster) leadership of 34% of the respondents do not ask for evidence of impact for their decisions frequently, an unacknowledgement in what is considered rewarded work that further weakens the significance of experimentation.

Besides, experimentation comes naturally with failure and invalidation of ideas and assumptions. While they can bring important learnings, the failures and invalidation are not considered productive in the current rewards system, which is a feeling shared by 33% of the participants.

Table 4: Statements associated with barrier 1 with respective scores

Statement	Score (4)
There are other more important objectives at GFI like cost saving or fast delivery. Therefore experimentation has to take a back seat.	1.77

Migration projects and requests from other teams/Business Clusters acted as an obstacle for us to make changes to our way of working.	2.84
I (and/or my team) have been given enough time, budget, and priority to conduct experiments.	2.50
Launching a new feature/releasing a new campaign is more appreciated than optimising existing ones within GFI.	2.35
My Business Cluster leadership frequently asked for evidence for decisions concerning products and marketing.	2.08
Failure and invalidation of my ideas/assumptions are not encouraged by my KPIs or my performance appraisal.	2.04

B. Lack of middle management support

The empirical results have revealed that middle management, such as Business Cluster leadership, is important for DTLSA to grow in the Business Cluster. And the current lack of it at GFI was confirmed by the survey results. 30% of the respondents indicated that they tried to convince their leadership on increasing experimentation. While their bottom-up initiative deserves applause, it exposed the low level of engagement with experimentation on the Business Cluster leadership level. The statement on Business Cluster leadership pro-actively asking for evidence also points to the same conclusion, with 34% of the respondents indicating their Business Cluster leadership not doing so.

Table 5: Statements associated with barrier 2 with respective scores

Statement	Score (4)
I tried to convince my team/Business Cluster leadership in order to execute more experiments.	2.28
My Business Cluster leadership frequently asked for evidence for decisions concerning products and marketing.	2.08

C. Unclarity on vision and action plan on the team and individual level

When it comes down to the team and individual level, the survey results suggest that there is an unclarity on where they are going & how they can get there regarding experimentation. When it comes to setting collective goals for more experimentation, 33% of the respondents didn’t know the vision on experimentation specific to their team and/or Business Cluster. And more experimentation also doesn’t seem actionable on the individual level: 44% of the respondents couldn’t clearly vision how their work would take shape if the proposed 100% experimentally validated future came true; and 38% of respondents were not sure about where or how they should make the first step with experimentation.

Considering that more than 60% of the respondents had already taken training on experimentation (e.g., DTLSA Online Training), it exposed the gap between having the practical know-how and making plans towards more experimentation with the team.

Table 6: Statements associated with barrier 3 with respective scores

Statement	Score (4)
I know clearly how the vision statement will impact my work.	2.05
I know the vision of my team and/or Business Cluster for experimentation.	1.87
I'm not sure where or how to start with experimentation.	1.81

D. Less than optimal tooling

The survey sees a certain level of complaints towards the tooling of experimentation at GFI, not only from the highly scored related statement, but also at the open question where the respondents were asked to specify their barriers to conducting experimentation. On the one hand, existing infrastructure is considered by some not easy to use. One comment in response to the open question complained about existing experiment infrastructure being not compatible with their working scope (e.g., A/B testing not possible in the email platform) and the results of some tools are difficult to analyse. Another answer also called for an unified toolkit for experimentation and practical guidelines on more efficient experimentation setup. On the other hand, requests for new or external tools for experimentation take a long time (1-3 years in some cases) at GFI, which prevents some teams from optimally executing experiments. K1 pointed out during the discussion of survey result analysis that there are certain regulation and safety concerns that come with GFI being a financial institution that might have led to this long approval process for new tooling.

Table 8: Statements associated with barrier 4 with respective scores

Statement	Score (4)
I find the tooling available within GFI for experimentation difficult to use.	1.94