



# IMPLEMENTATION OF INTEGRATED PROJECT DELIVERY IN LEBANON: OVERCOMING THE CHALLENGES



## Authors:

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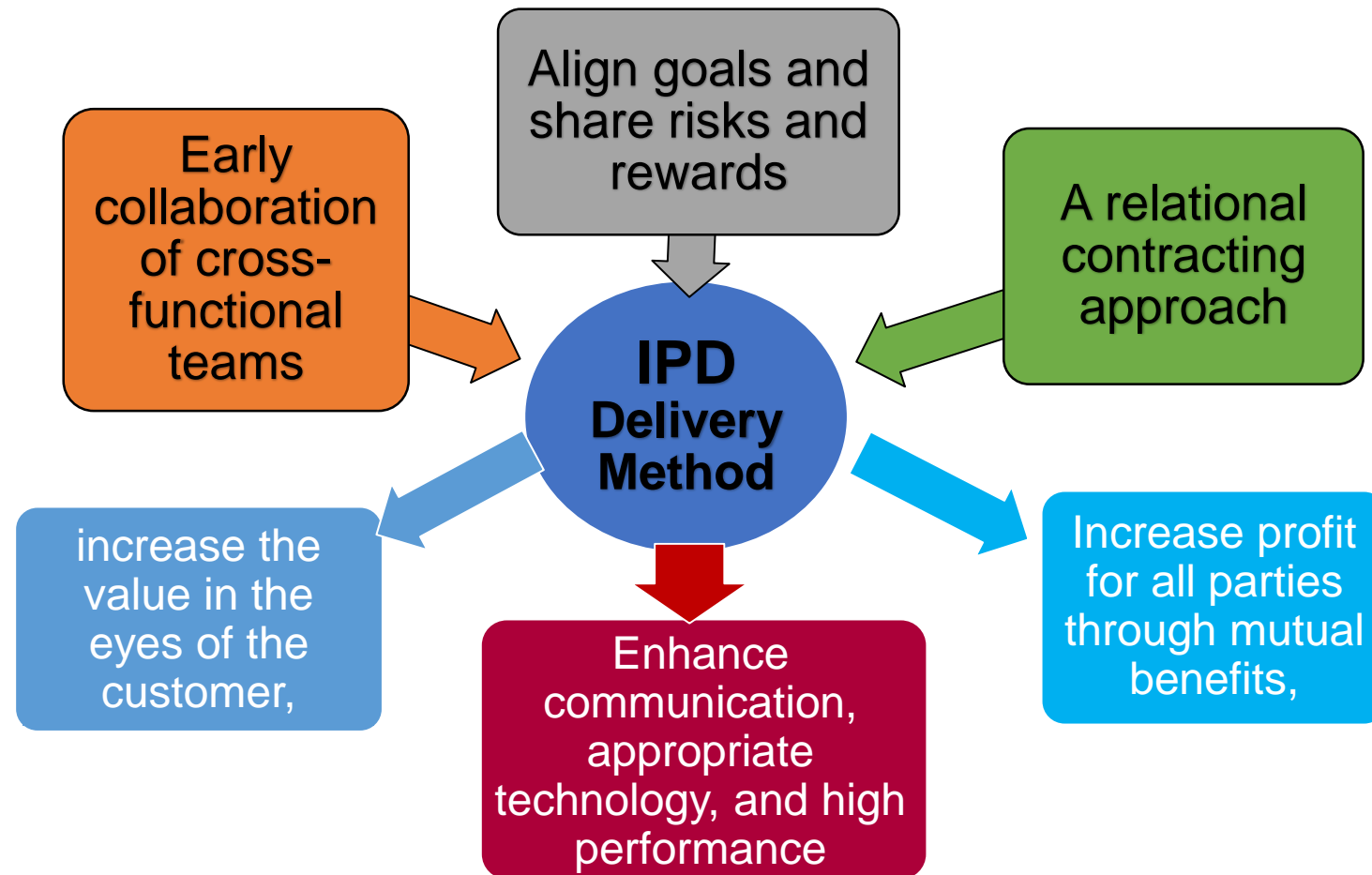
# Outline

- ◀ Introduction
- ◀ Research Gap
- ◀ Methodology
- ◀ Research Finding
- ◀ Analysis and Discussion
- ◀ Conclusion and Recommendation

A construction site featuring a large yellow tower crane on the right side. In the background, several modern high-rise buildings are visible, including one with a distinctive curved facade. The foreground shows construction materials and scaffolding. The word "Introduction" is overlaid in white text in the center of the image.

# Introduction

# Integrated Project Delivery (IPD)



(AIA , 2007)  
(Matthews & Howell, 2005)

# Construction Industry in Lebanon and the Middle East (MENA Region)

## Current Delivery Methods in the Region:

The **Design-Bid-Build** approach is the most common type of delivery system in the MENA region (Hamzeh et al., 2019).

**Fédération Internationale des Ingénieurs-Conseils** (FIDIC) is the most common type of contract Template used in the MENA region. (Rached et al. 2014)

## Major Problems with current delivery approaches & contract templates:

Holding back ideas.  
Limiting cooperation and innovation.  
Do not spur innovation at the project level.  
Limit coordination and collaboration.

(Wilkinson et al, 2012).

# Previous Studies on IPD in the MENA region

An evaluation of the cultural acceptance of the ME industry to IPD practises done by **Rachad et al. (2014)**

A reflection on an IPD project done in ME presented by **Korb et al. (2016)**.

An investigation of cultivating collaboration within ME industry by adopting IPD contracts done by **Hamzeh et al (2019)**

A wide-angle photograph of a large-scale construction site. In the foreground, there's a grid of rebar for a concrete slab. Several workers in orange safety vests are visible. In the middle ground, two tall blue tower cranes stand prominently. To the left, a large building under construction is partially visible, with a green safety net or scaffolding. The background shows more cranes and a clear sky with some clouds.

# Research Gap



# Problem Statement

## Motivation to Conduct Research:

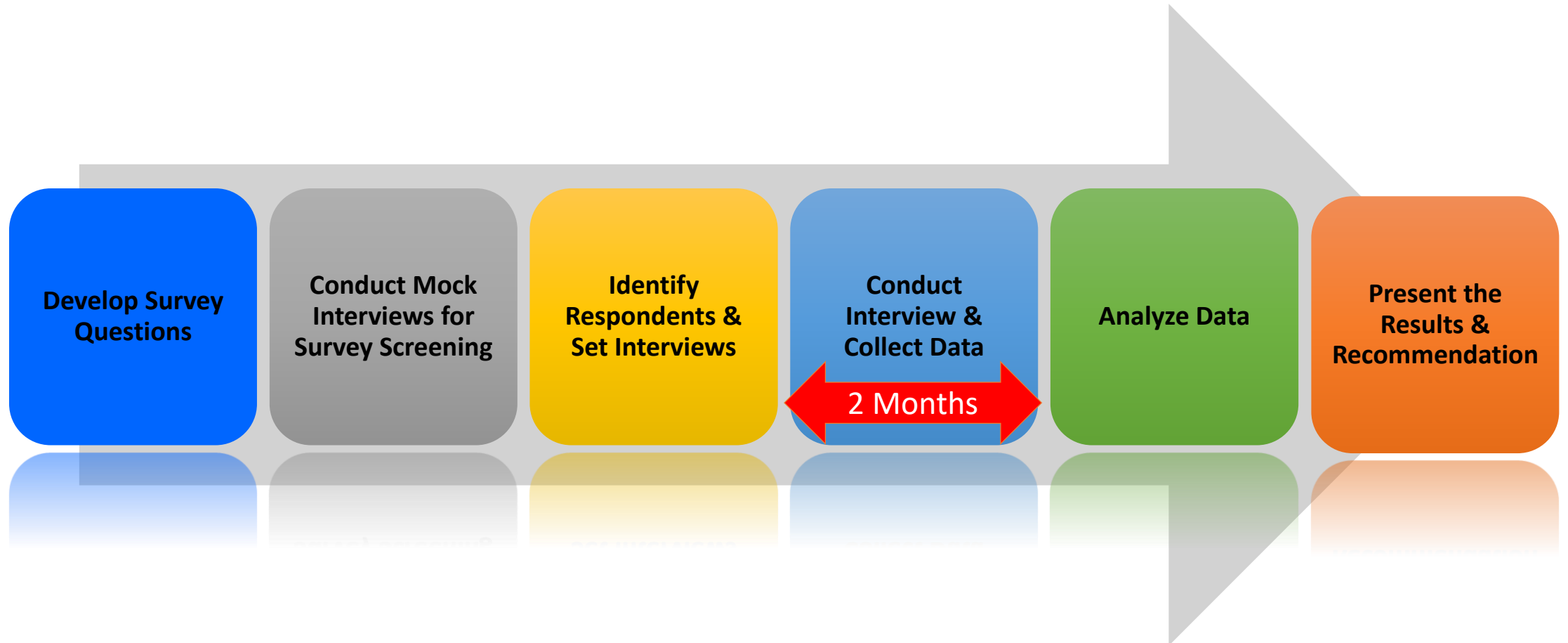
- IPD research within the MENA construction industry is very limited.
- Traditional Project Delivery approaches are not sufficient to satisfy current market demands.

## Research Objectives

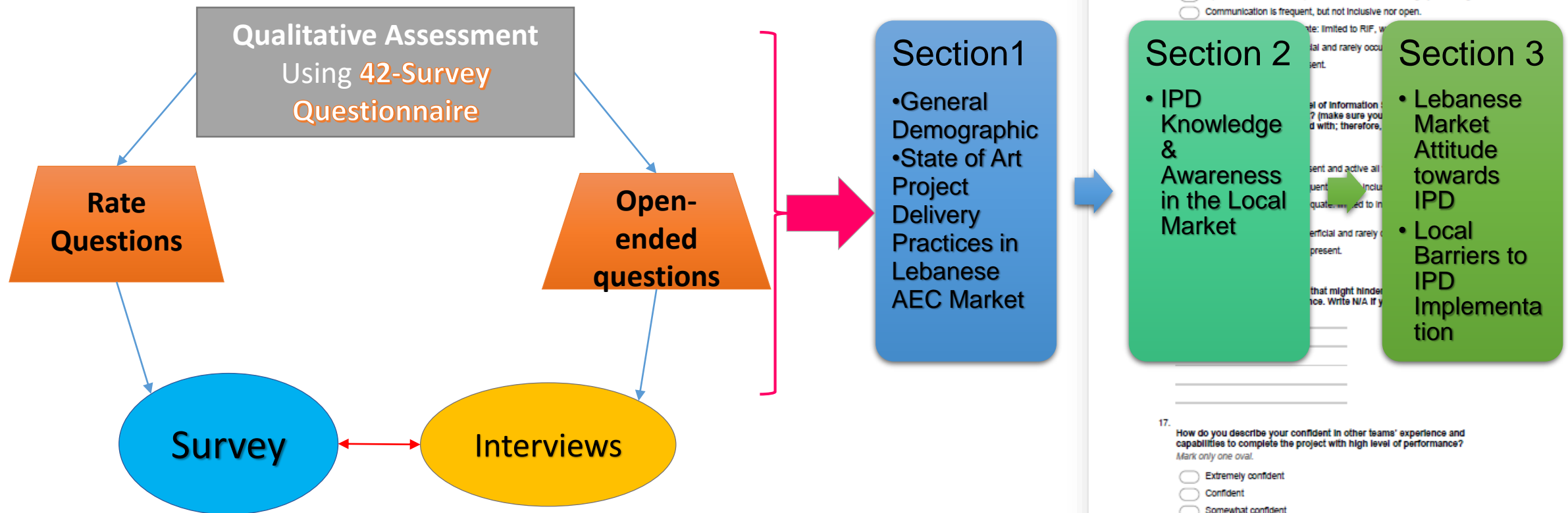
- To analyze the industry's attitudes towards IPD approach, and
- To identify the IPD implementation barriers.

## A man in a dark suit stands with his back to the camera, looking at a wall covered in various hand-drawn business sketches. The sketches include a bar chart with an upward arrow, a pie chart, a line graph, a lightbulb, a stack of money, a pie chart with percentages (25%, 45%, 10%, 20%), a bar chart, a sun, a city skyline, and the word 'SUCCESS'. The word 'Methodology' is overlaid in large white text across the center of the image.

# Research Process



# Survey and Interview Questions



14. How do you rate the overall level of communication and the working relationship between your Firm and other stakeholders on a project? (make sure your answer reflects on all projects you have been involved with; therefore, do not limit your answer to an experience with one project) \*  
Mark only one oval.

- ☐ Open-Communication is present at all times and is highly encouraged.  
☐ Communication is frequent, but not inclusive nor open.

## Section 2

- IPD Knowledge & Awareness in the Local Market

## Section 3

- Lebanese Market Attitude towards IPD
- Local Barriers to IPD Implementation

17. How do you describe your confident in other teams' experience and capabilities to complete the project with high level of performance?  
Mark only one oval.

- ☐ Extremely confident  
☐ Confident  
☐ Somewhat confident  
☐ Not very confident  
☐ Not Confident at all

A photograph of a stack of smooth, light-colored stones. The stones are arranged in a vertical column, with a single reddish-brown stone at the top. The background is a solid blue color.

# Research Findings

# General Demographics

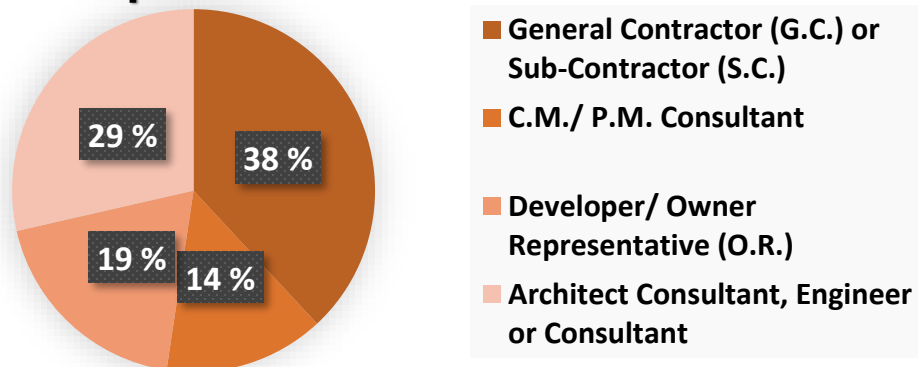
23 interview  
hrs. were  
Recorded.

21 industry  
professionals  
Completed  
the Survey.

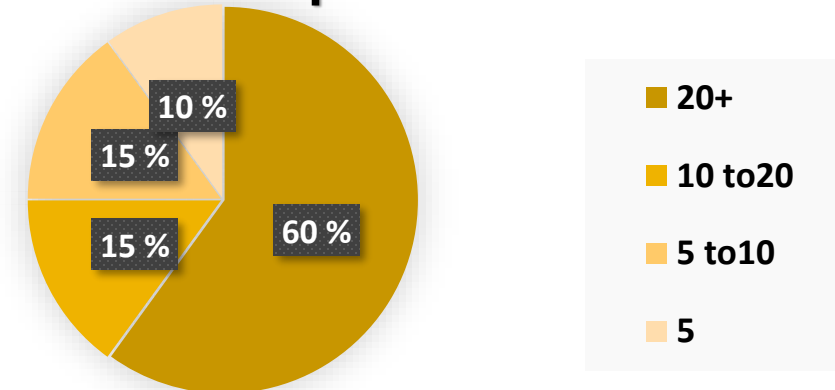
700+ years of  
experience in  
the Lebanese  
AEC industry.

All  
Participants  
have no prior  
experience  
with IPD  
Projects.

## Participant's Profession Distribution

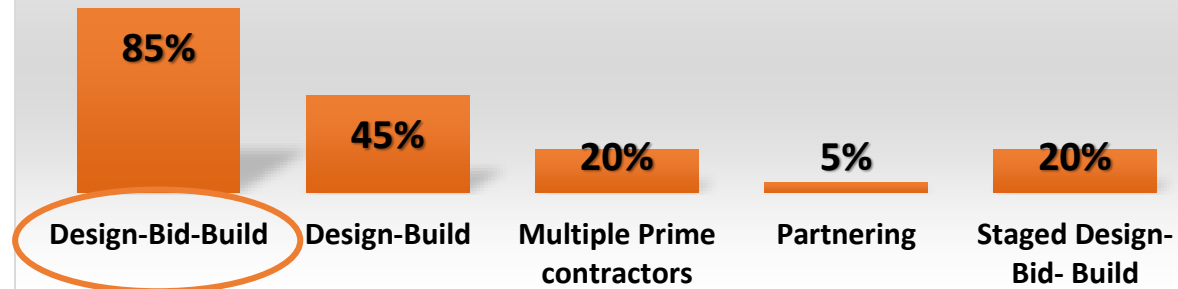


## Years of Experience Distribution

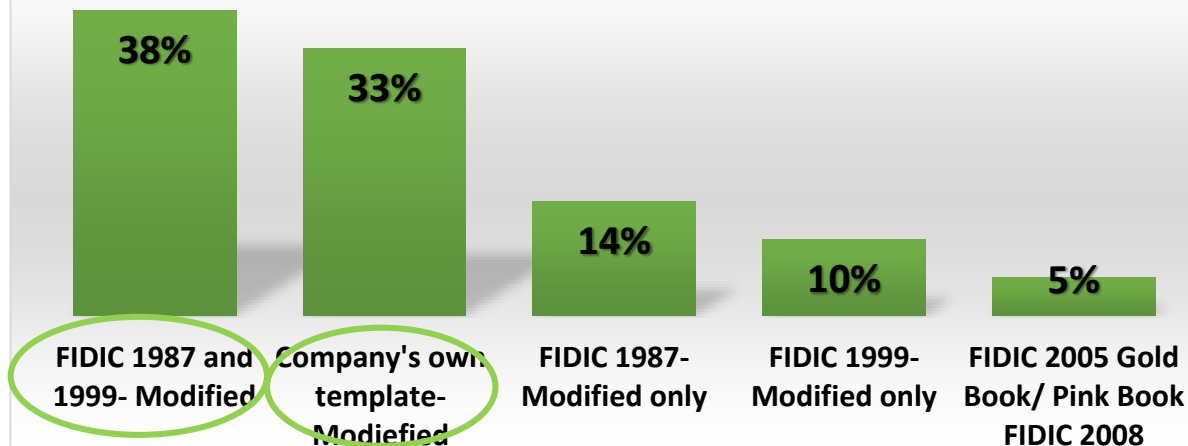


# General Demographics (Cont'd)

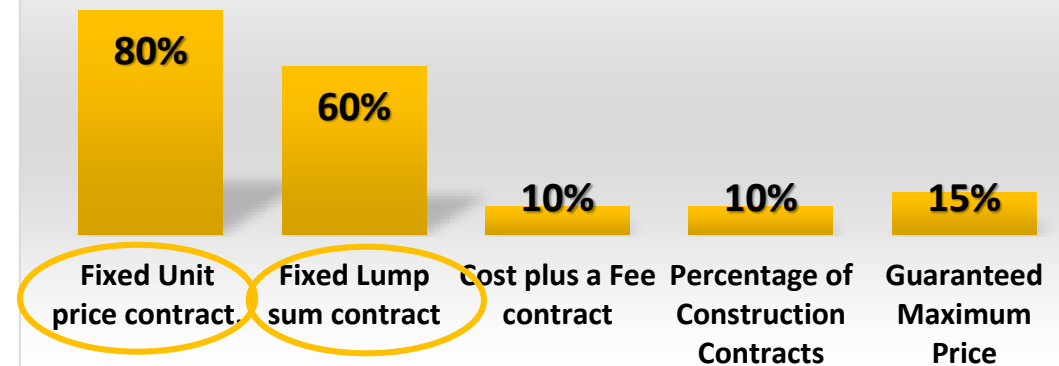
Type of Project Delivery Method(s)  
Employed



Contract Template(s)

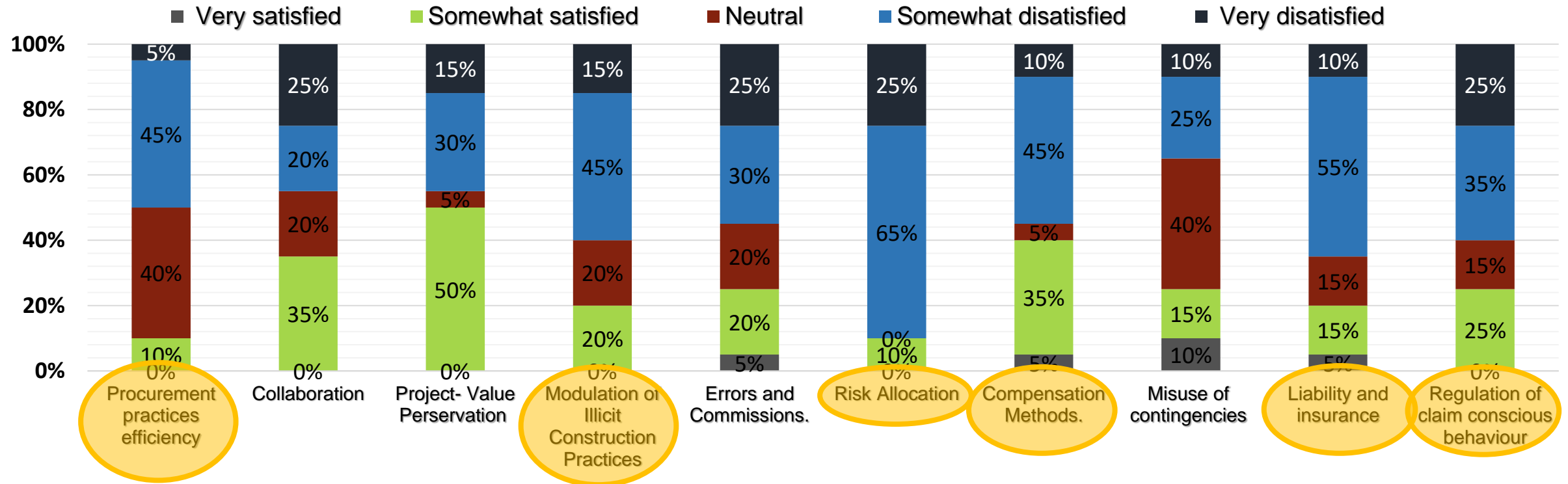


Types of Contract(s) Employed



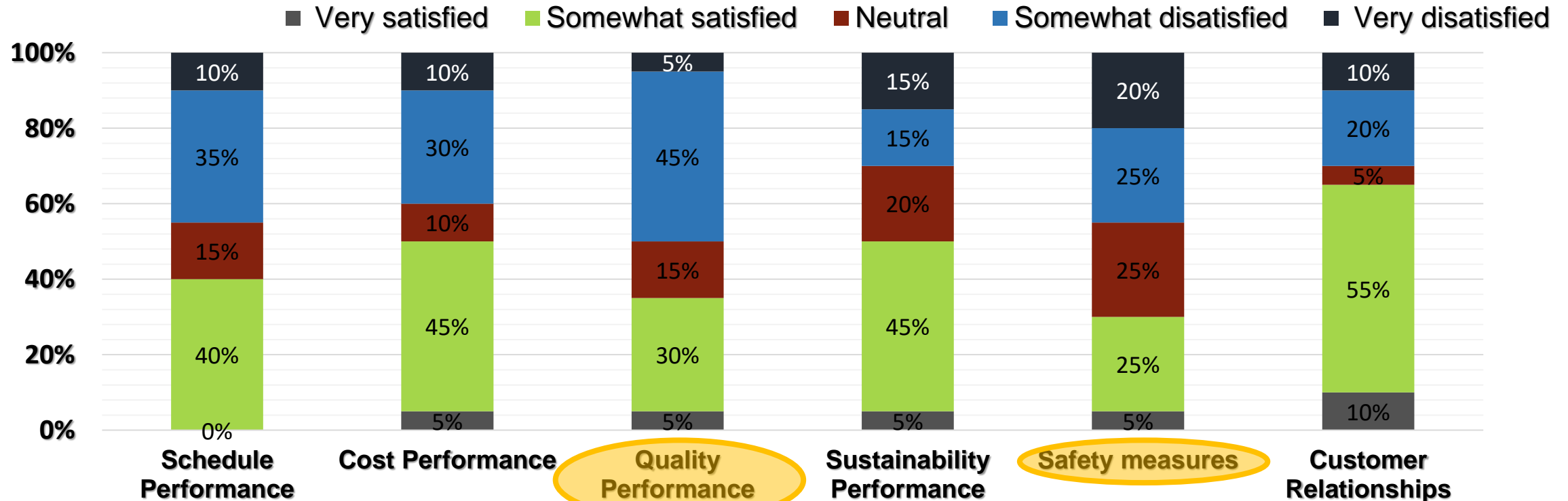
# An Assessment of Project Delivery Practices in the Lebanese Construction Industry (Cont'd)

Participants were asked to rate their satisfaction with the employed **Contract Templates**:



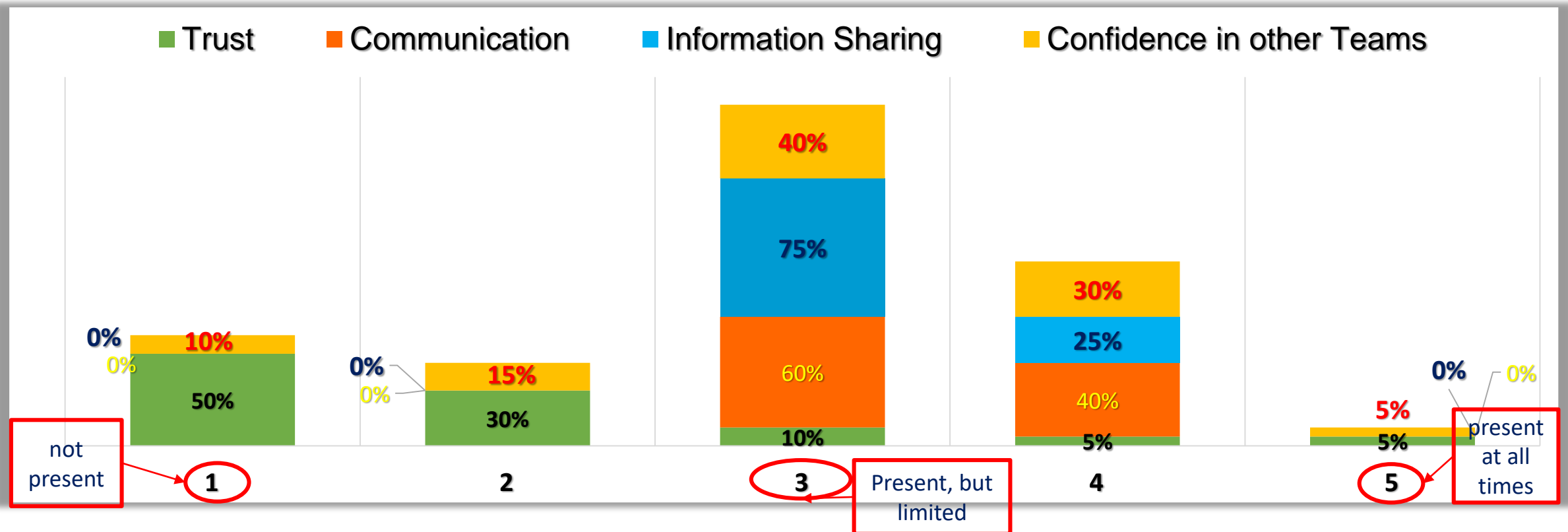
# An Assessment of Project Delivery Practices in the Lebanese Construction Industry (Cont'd)

Participants were asked to rate their satisfaction with **Project Performance** based on a list of performance indicators introduced by El Asmar et al. (2015).



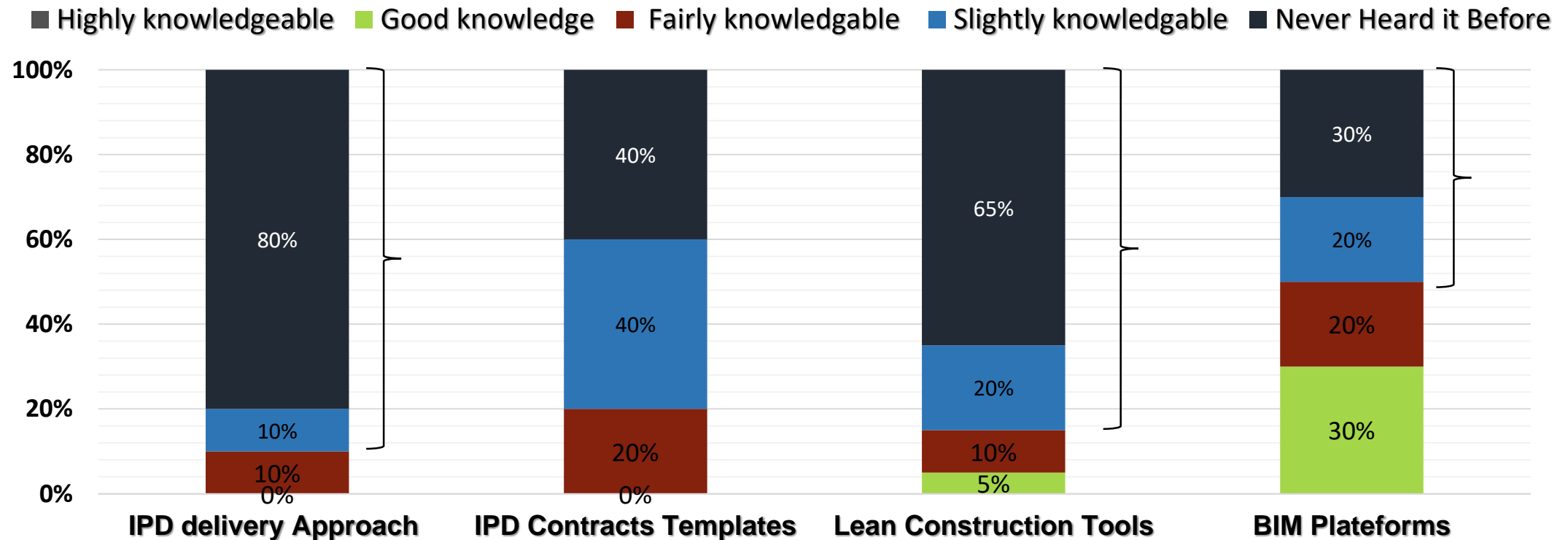
# An Assessment of Project Delivery Practices in the Lebanese Construction Industry (Cont'd)

Collaboration Level in the Lebanese Construction Industry:



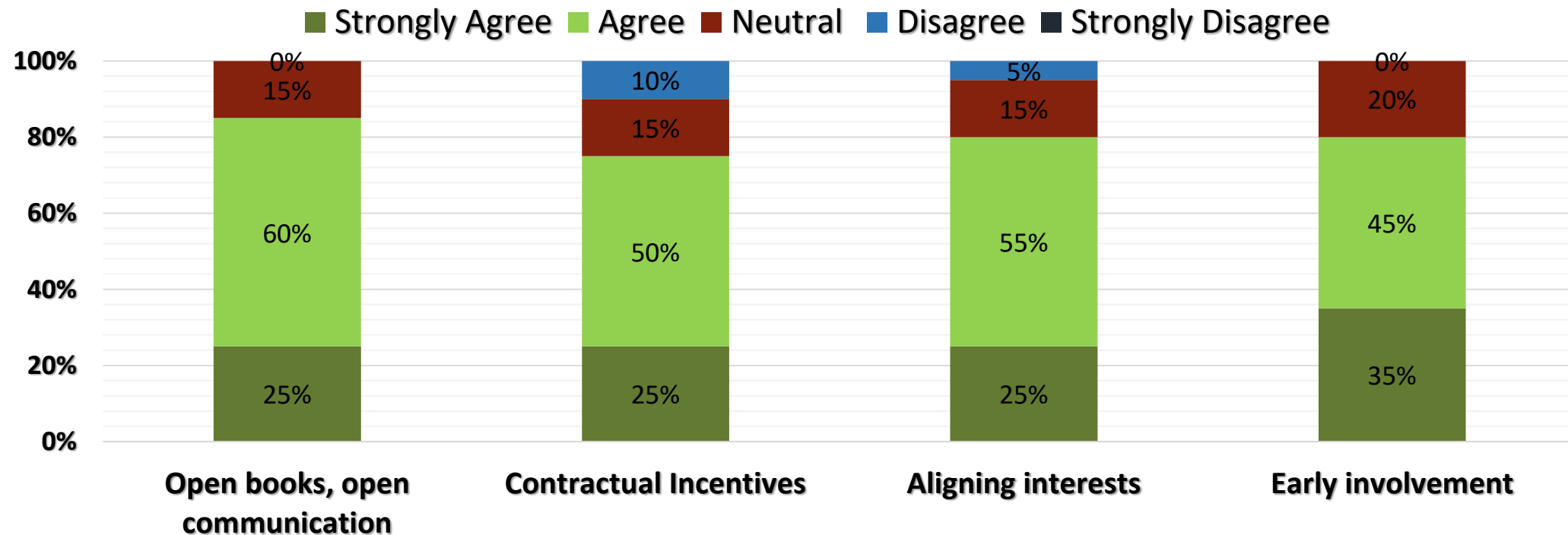
# IPD Knowledge and Awareness Level in the Lebanese Construction Industry

Participants were asked to assess their **knowledge in the key IPD elements** as follows



# IPD Knowledge and Awareness Level in the Lebanese Construction Industry (Cont'd)

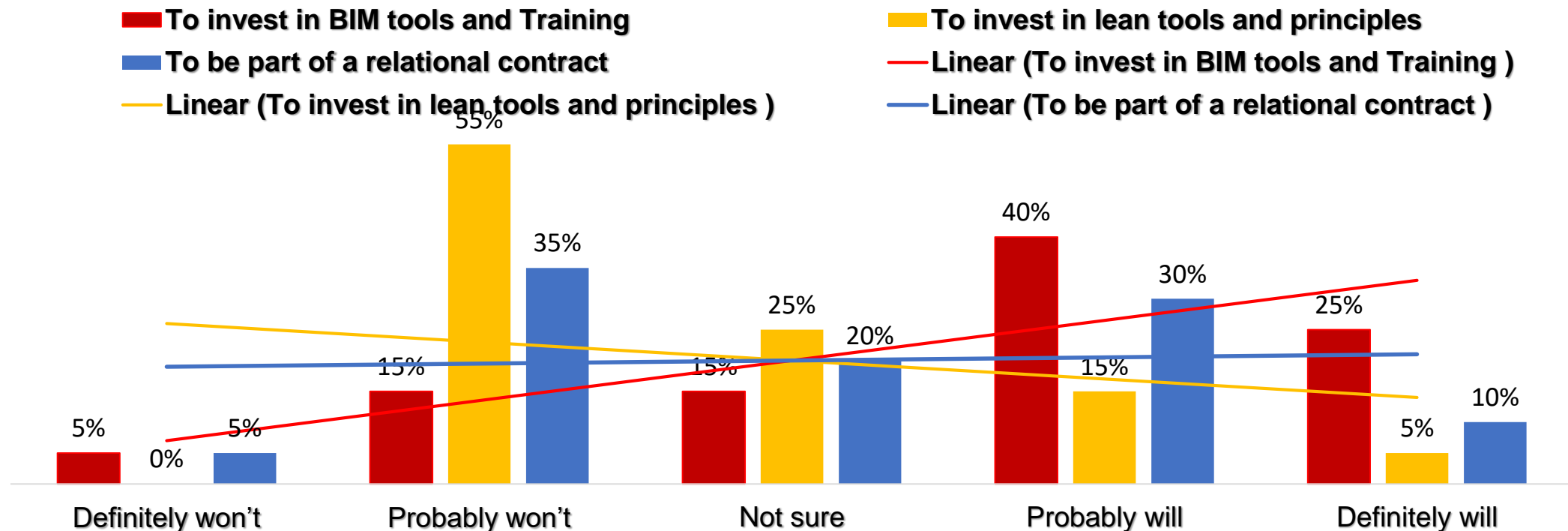
Respondent stated their Viewpoint regarding **Successful Project Criteria**.





# Industry Attitudes towards IPD Implementation

Participants were asked to express their **willingness** to be part of a **relational contract** and to invest in **technological upgrades**:



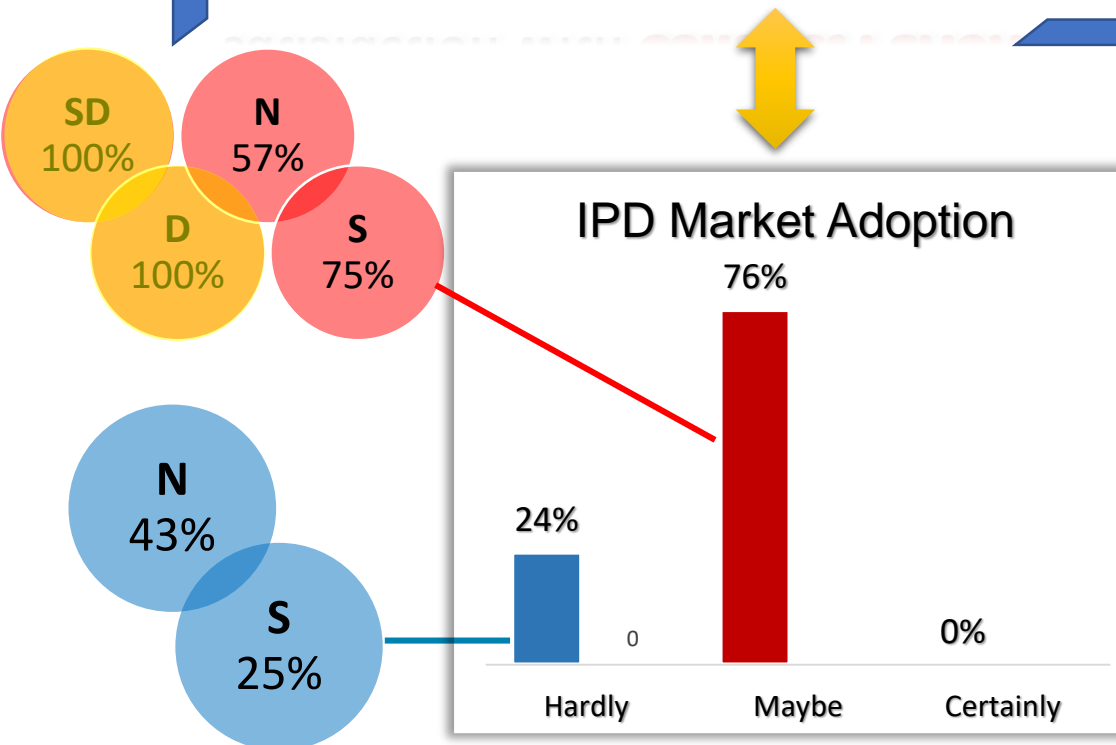
# Success

## Discussion and Analysis

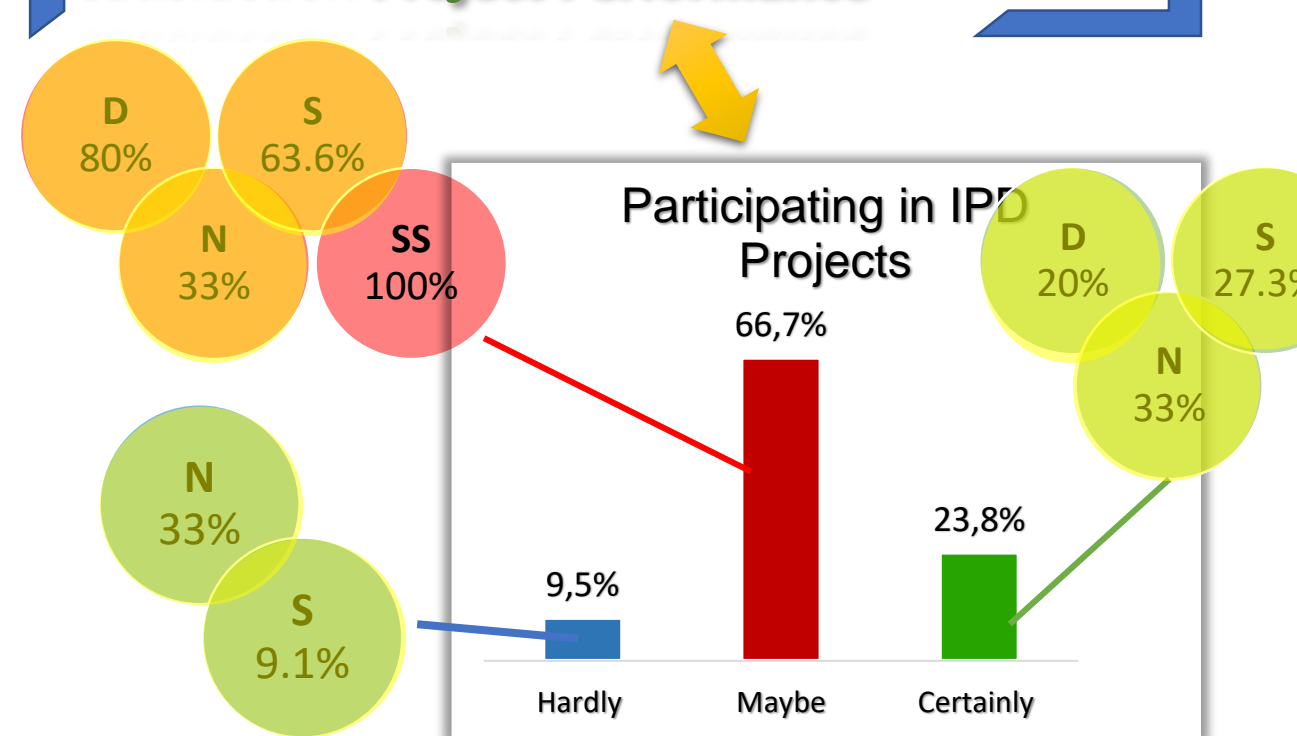


# Lebanese Market Attitudes towards IPD Adoption

In relation to the respondent's satisfaction with **Contract Performance**



In relation to the respondent's satisfaction **Project Performance**



# Lebanese Market Attitudes towards IPD Adoption

- All of the interviewed participants foresee the need for a change, yet not all agree that IPD would be the preferred approach in Lebanon.
- Reasons:
  1. Lack of **Knowledge** regarding IPD agreement forms and **Lean construction**.
  2. Lack of **Financial incentives** with the **current market**.
  3. Lag in **contractual updates**.
  4. **Bidding process** that compromises **quality**.
  5. Lack of **Trust** due to **Fraudulent practices**.



“What if we don’t change at all ...  
and something magical just happens?”

# Barriers to IPD Implementation in Lebanon

The main IPD barriers in this study were classified Based on the Four Implementation barriers identified by Kent & Gerber et al. (2010)

## ***Legal Barriers***

1

The syndicate mandates that the A/E and G.C. to be from different entities -**for projects > 50,000m<sup>3</sup>**

**Public sector:** government laws dictates that contractor selection should be done only through bidding.

**Public sector:** Council for Development & Reconstruction-CDR foster their own contracts

FIDIC family of contracts is mandated For projects funded by **International Organizations** such as World Bank

## ***Cultural Barriers***

2

Governed by Political affairs.

Self-preservation mentality & illicit Practices

Local optimization practices

**Risk Evasive Owner**

As one of the interviewee stated : "If I want to be part of a team that shares risks then why am I paying them!".

# Barriers to IPD Implementation in Lebanon (Cont'd)

## *Technological Barriers*

3

Limited experience & knowledge regarding BIM platforms and Lean Tools

Unwillingness to invest resources and assets in adopting a new delivery system. (FIDIC gap)

Absence of capable contractors and financial incentives associated with the technological upgrade.

## *Financial Barriers*

4

Absence of a competitive market.

Absence of a financially capable owner.

Absence of case-studies (or evidence regarding return on investment) for IPD projects in the MENA region.



# Conclusion & Recommendations

# Key Findings

The participants reflect a general attitude of **“save my skin”**.

IPD is still considered a **“risky business”** in the Lebanese context.

A **cultural change** is imperative to the implementation of successful IPD projects in Lebanon. **“hard yet achievable with a mind shift transition that required cultural changes and group efforts”**

There is wide gap between the Lebanese construction market current practices and the mind-shift ideals of IPD agreements, therefore the transition process will require time.

Participants are not confident with IPD contracts when it comes to liability, insurance and **risk/ revenue sharing**.

**Lack of confidence and trust** among the teams on a construction project resulted in a culture that is skeptical to the applicability of IPD-terms

**Lack of Knowledge** concerning IPD agreement forms and Lean construction was a major deterrent to it's acceptance in the area.



# Key Findings

## Recommendations:

- **Breaking the Ice:** Some IPD concepts/ philosophy should be adopted and practiced within the current delivery approach. (e.g. Lean tools)
- **IPD Marketing:** Consultants and experts should advocate IPD approach on project management level. (workshops/case-studies )
- **Providing market incentives and attractions to long-term developers with high financial capabilities.**

## Future Research Opportunities:

- Addressing a wider range of Participants.
- Comparing IPD contracts to current contracts and finding opportunities for improvements.
- Studying different approaches to Introduce IPD to the Lebanese Market.

# Thank you!

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