

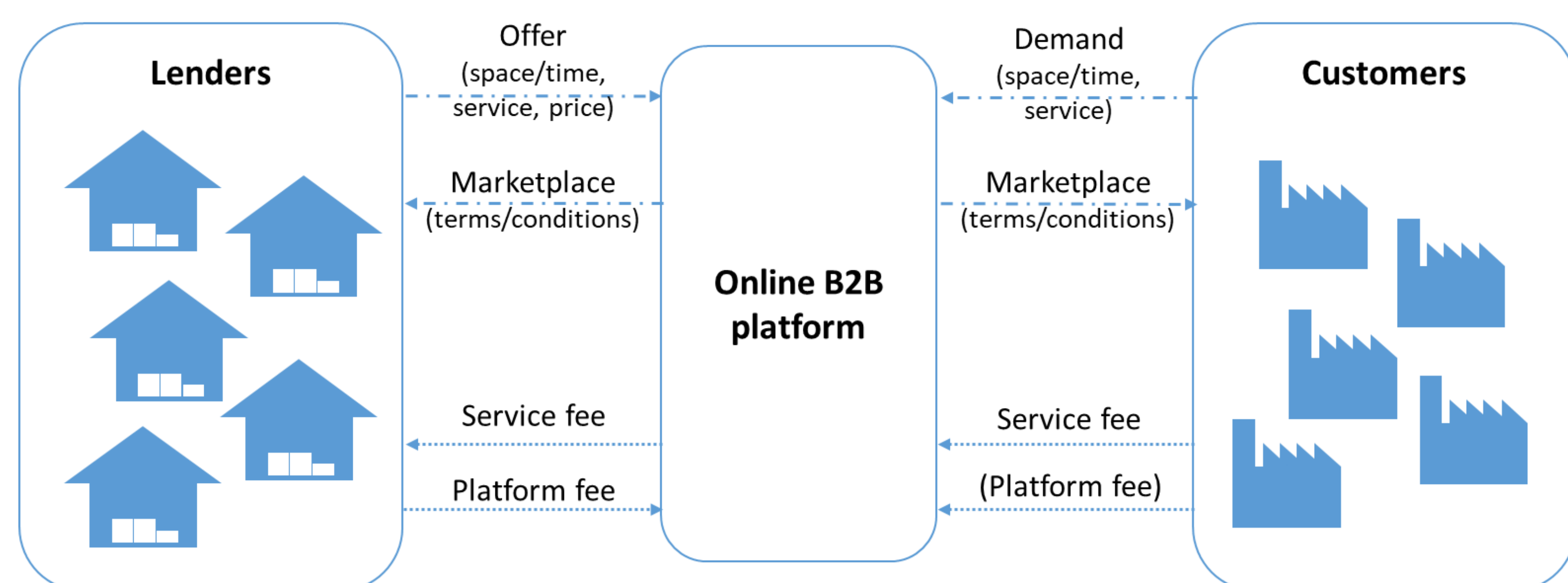
Evaluating business service models for on-demand warehousing: a double perspective on suppliers and customers

Maria Grazia Gnoni, Ph.D. and Fabiana Tornese, Ph.D.
University of Salento



BACKGROUND

- The diffusion of e-commerce and multichannel strategies is increasing variability and need for speed in logistics → need for innovative solutions.
- Models based on resource sharing are spreading in the logistic sector.
- On-demand warehousing (ODW) allows quick B2B transactions for warehousing services.



- Geographic area:** Europe (6), USA (2), South-East Asia (2)
- Cost structure:**
 - Customers: Pay-as-you-go (+ eventual platform fee)
 - Lenders: Free listing (+ eventual platform fee)
- Services:**
 - Basic (storage + handling)
 - + fulfillment and distribution
 - + advanced services (SC consultancy, return management, ...)

DISCUSSION

Benefits

For customers:

- High commitment and capacity granularity
- Increased access to scale
- Increased flexibility & speed responding to variable demand

For lenders:

- Increase resources utilization
- Increase profit
- Enlarge customers' pool

Criticalities

For customers:

- Lack of service standardization
- Lack of control and visibility on the fulfillment phase
- Performance Variability
- Short-term solution

For lenders:

- Resource prioritization
- Demand uncertainty
- Potentially high concentration of customers
- Short-term solution

OBJECTIVE

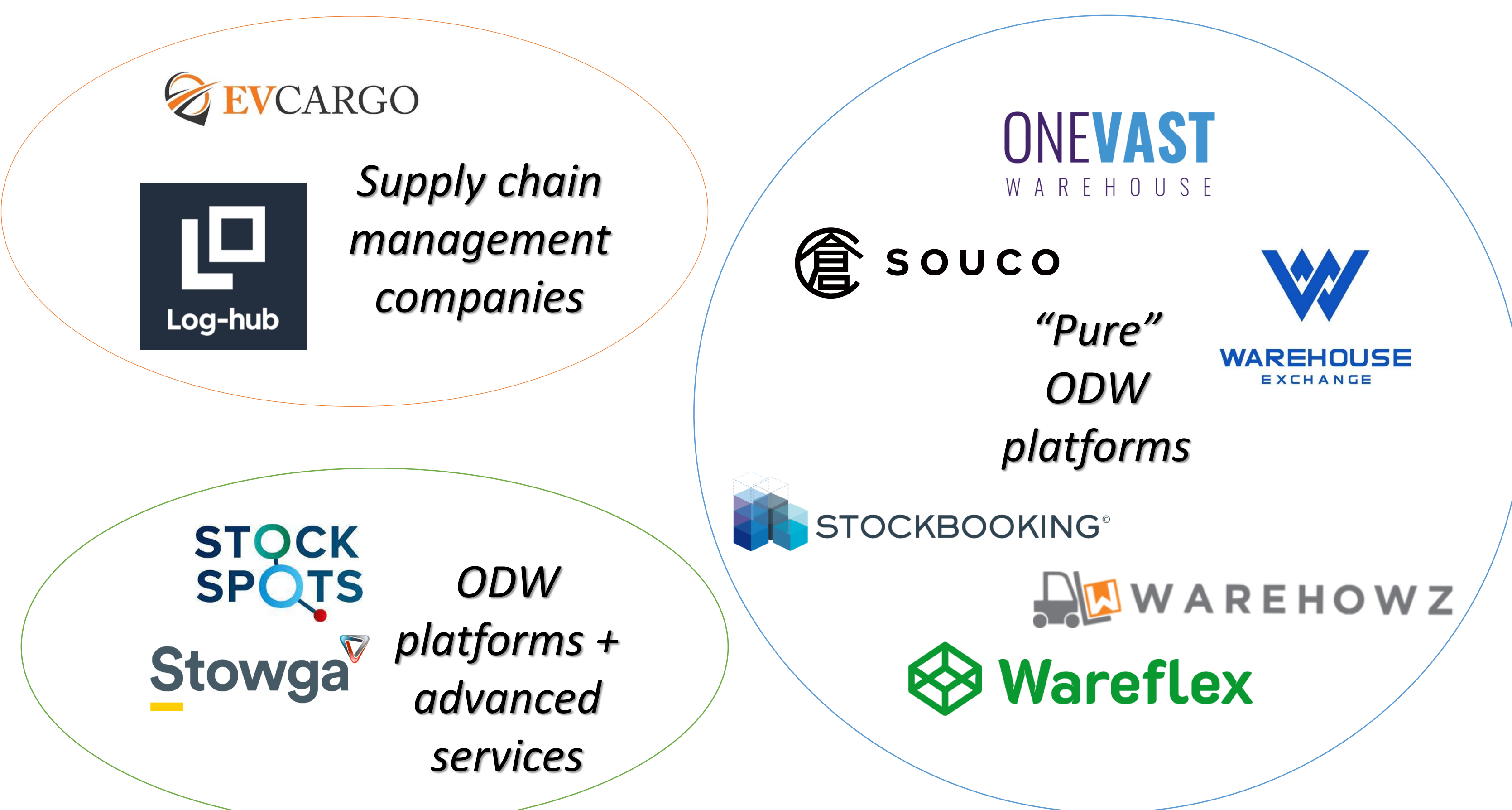
Identifying the **main trends and features** in ODW, defining **benefits and challenges** for the two actors involved (lenders and customers).

ANALYSIS

Literature analysis

- Few studies on ODW, with different focus (conceptualization, resource allocation, warehouse selection)
- Research gaps:
 - value creation process of ODW models
 - impact of ODW models on operations
 - Main criticalities of ODW models

Market analysis: Currently operating ODW platforms



COMPARING WAREHOUSE MODELS

Features	ODW platforms	4PLs	3PLs
Time to first service	Days	Days/weeks	Weeks
Relationship with lenders	Short-term, flexible. Involves many lenders	Long-term. Involves many lenders	3PL is the only lender
Lenders' reliability	Variable	High (certified lenders)	High
N° of facilities involved	High. Network-based	High. Network-based	Low
Service portfolio	Medium variety of logistic services (depending on the lender)	Wide variety of logistic services offered	Wide variety of logistic services offered
Inventory tracking	Optional	Guaranteed	Guaranteed
Time commitment	Weeks	Months	Months
granularity			
Capacity granularity	Per pallet	Per pallet	Minimum space required
Access to scale	High	High	Low
Cost structure	Pay-as-you-go	Pay-as-you-go	Flat + variable fee