

# Omnichannel Behaviour: Definitions and Covariables

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# 1. Motivation

# Full development of online channels

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- Nearly full penetration of online channels in **companies**
- **Consumers** use a variety of tools in order to access these channels any time in any place

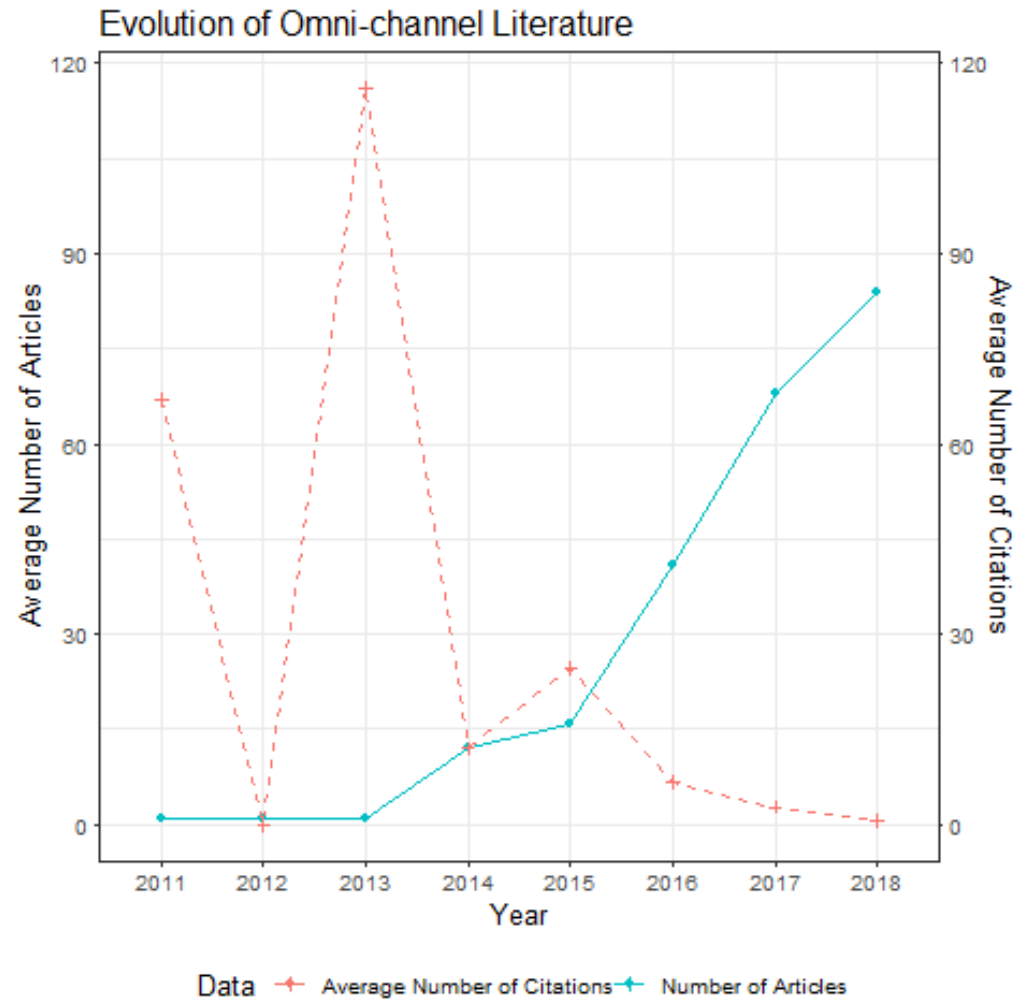


# In this context: Omni-channel Research Top Priority



Image Credit: Marketing Science Institute (2018), "Research Priorities 2018-2020"  
Cambridge, Mass.

## Outburst in the use of the term "OMNICHANNEL": ISI search results



# But, what exactly does "omnichannel" mean?

## Omni-channel **management**

- The synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized

- Verhoef, Kannan, Inman, 2015

# What does omnichannel **behavior** mean? (Ailawadi and Farris, 2017):

## "Channel mix approach":

Combination and choices between channels of the same provider

e.g. Pauwels et al, 2011, Herhausen et al 2015, Fornari et al 2016, Kim and Chun, 2018

## "Customer journey approach"

Different stages in the same purchase process (possibly different providers)

e.g. Rapp et al, 2015, Gensler, Neslin and Verhoef, 2017, Kang, 2018, Park and Kim, 2018

# One retailer and its customer base: Unsolved questions

- All customers are equally "omnichannel"?, how to distinguish one purchase process from another?
- O1. Can we provide unambiguous rules for the classification?
- How do they use company's channels and services? Are there any differences between customers according to their omnichannel behavior?
- O2. Can we provide a sensible segmentation?



## 2. Conceptual framework

## Focus: One company studying its customers (manufacturer or retailer) with two channels






- Dyadic perspective customer-firm
- Two channels: brick and mortar and online

e.g. [Brynjolfsson and Hu, 2011](#), [Chopra, 2016](#), [Bell, Gallino and Moreno, 2018](#)...

# Distribution services

- Core concept for the understanding of the omni-channel behavior
- The provision of **distribution services** (DS) is the core function of distribution channels:

Categorization:

-  accessibility to the product
-  information
-  breadth and depth of assortment
-  assurance of product delivery in time and form
-  ambiance

(Kopalle and Lehman, 2006, Betancourt et al 2007)

# Channel mix and Distribution Services (I)

- The combination of both channels allows the company to attend **different demands of DS** for different customers or different situations
- Both channels offer different combinations of distribution services more suitable for some customers and/or situations
- "Channel-mix perspective"






















## Channel mix and Distribution Services (II)

- IT have brought a **BIG** change: the **separability** of DS in time and space (Betancourt et al 2016)
- Separability makes it possible for customers to **combine DS** from different company's channels
- The combination of both channels allows the company to attend **demands of combinations of DS** for some (or all) customers
- "Customer journey" perspective



## Examples

Examples	Store	Web
A customer <b>purchases at the company's retail store</b> after getting <b>information about the products</b> in the company's web site	    	 
A customer <b>purchases products at the company's web site</b> and asks the product to be <b>delivered to one retail store</b> located close to her/his office	 	    
A customer never purchases products online and never visits the company's website	    	—
...	...	...

In this setting, we define:

- A **customer**: Someone that has bought from one of the company's channel during a given period of analysis.
- A **user**: A company's customer that interacts with the company (use the DS provided by the company) through one channel during the period of analysis.

We distinguish three types of customers in a certain period of time:

Purchase Channel	Service Channel	Type
● ○ Monochannel Customer	● ○ Monochannel User	Type I: Monochannel customer
● ○ Monochannel Customer	● ● Multichannel User	Type II: Omnichannel User
● ● Multichannel Customer	● ● Multichannel User	Type III: Omnichannel Purchaser



# 3. Empirical Application



# Objectives

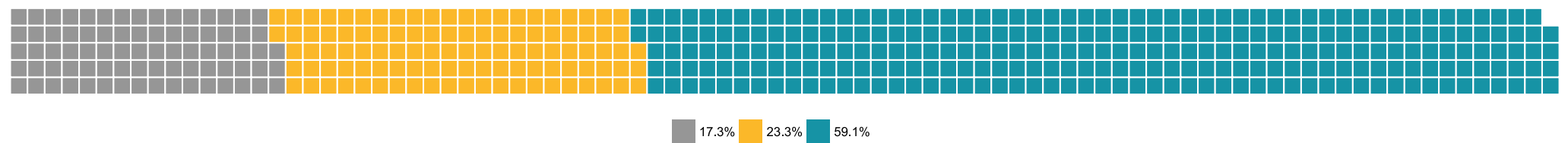
- O1. Identification of the **segments** in the multichannel operation of a company with two channels (web and store)
- O2. Explanation of how customers self-select into these **three segments** according to evaluation of DS, channel policies and personal characteristics

# Empirical setting

- **Population Definition:** Customers of a well-known global fast fashion retailer company
- **Online Panel Survey:** 450 valid responses from firms' customers in the last six months
- **Measures:**
  - (1) Shopping behavior
  - (2) Evaluation of DS at the store and at the web
  - (3) Channel policies
  - (4) General attitudes
  - (5) Consumer characteristics

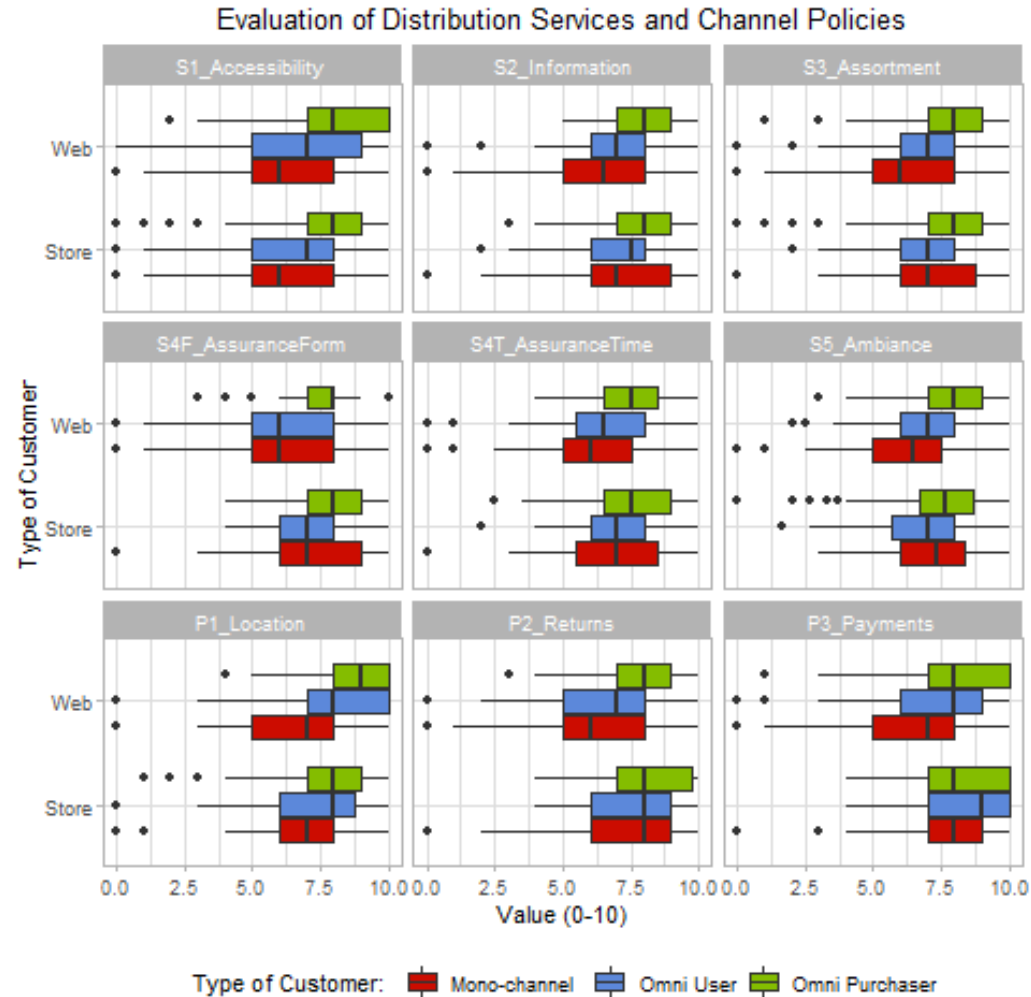
# Segmentation based on behavior (visits and purchases) in the last year: Results

Purchase Channel	Services	Type	Number		
● ○	● ○	Type I: Monochannel Customers	78	63	15
● ○	● ●	Type II: Omni-Channel Users	106	87	19
● ●	● ●	Type III: Omni-Channel Purchasers	266		

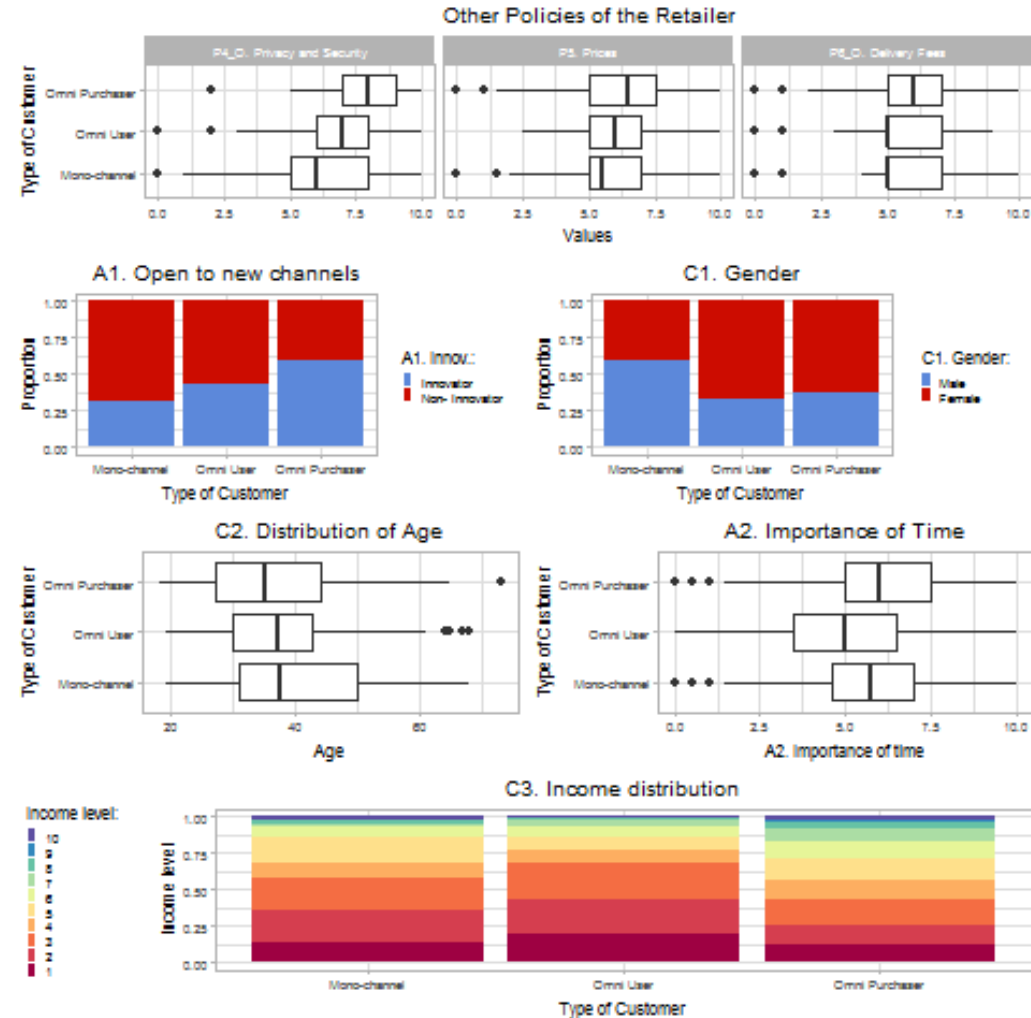


shortname	fullname	N	Min	Max	Mean	SD
S1_S	Convenience of location access point (S)	450	0	10.0	6.99	2.29
S1_W	Convenience of location access point (W)	450	0	10.0	7.50	2.15
S2_S	Amount of product information (S)	450	0	10.0	7.62	1.72
S2_W	Amount of product information (W)	450	0	10.0	7.39	1.82
S3_S	Available assortment at time of purchase (S)	450	0	10.0	7.41	1.74
S3_W	Available assortment at time of purchase (W)	450	0	10.0	7.23	1.96
S4F_S	Assurance of product delivery in the desired form (S)	450	0	10.0	7.60	1.58
S4F_W	Assurance of product delivery in the desired form (W)	450	0	10.0	7.02	1.93
S4T_S	Assurance of timely product delivery (S)	450	0	10.0	7.38	1.57
S4T_W	Assurance of timely product delivery (W)	450	0	10.0	7.02	1.84
S5_S	Shopping ambiance (S)	450	0	10.0	7.38	1.65
S5_W	Shopping ambiance (W)	450	0	10.0	7.37	1.76
P1_S	Ease of access according to location (S)	450	0	10.0	7.58	1.88
P1_W	Ease of access to the webpage (W)	450	0	10.0	8.12	1.91
P2_S	Compliance with product return policy (S)	450	0	10.0	7.78	1.75
P2_W	Compliance with product return policy (W)	450	0	10.0	7.19	2.18
P3_S	Compliance with accepted modes of payment (S)	450	0	10.0	8.16	1.66
P3_W	Compliance with accepted modes of payment (W)	450	0	10.0	7.64	2.11
P4_W	Confidence in online privacy and security policy (W)	450	0	10.0	7.38	1.93
P5	Price differential with respect to similar brands	450	0	10.0	6.21	1.74
P6_W	Transport cost differential with respect to similar brands	450	0	10.0	5.76	1.84
A1	Innovativeness (0;1)	450	0	1.0	0.39	0.49
A2	Importance reducing purchasing time	450	0	10.0	5.60	2.40
C1	Gender (Male) (0;1)	450	0	1.0	0.40	0.49
C2	Age	450	18	73.0	37.00	11.39
C3	Income (1 to 10)	450	1	10.0	3.86	2.19
C4	Distance to the store (minutes)	450	2	206.0	19.91	18.96
L1	Percentage of purchases	450	0	9.5	3.63	2.23
L2	Share Store	450	0	10.0	6.09	2.61
L3	Share online	450	0	10.0	4.81	3.11

# Differences between segments (I)



## Differences between segments (II)



## Segmentation Analysis: Multinomial Logit Model

$$U_i = x_i\beta + u_i$$

where  $i = 1, 2, 3$

$1 = TypeI, 2 = TypeII, 3 = TypeIII$

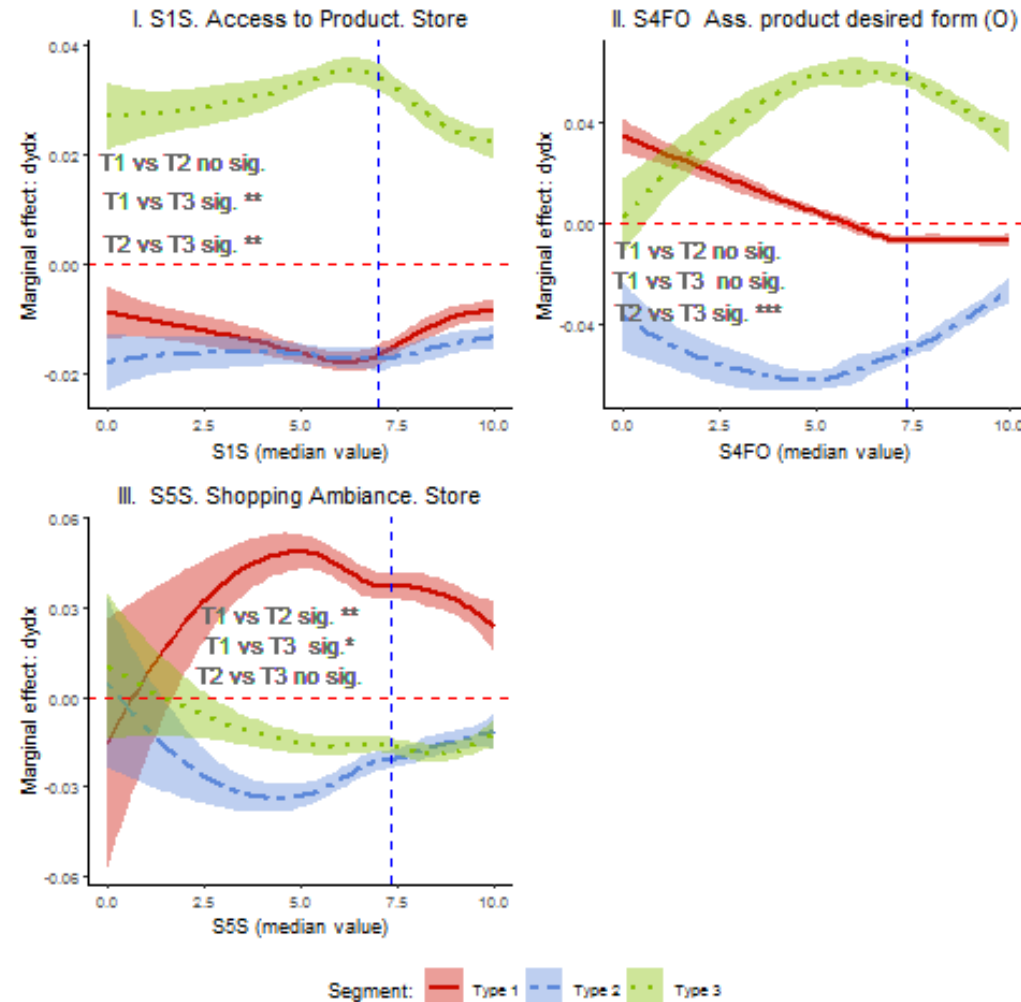
$x_i$ : variables used to describe the services offered by both channels, channel policies and consumer attitudes and demographics

$u_i$  is the error term.

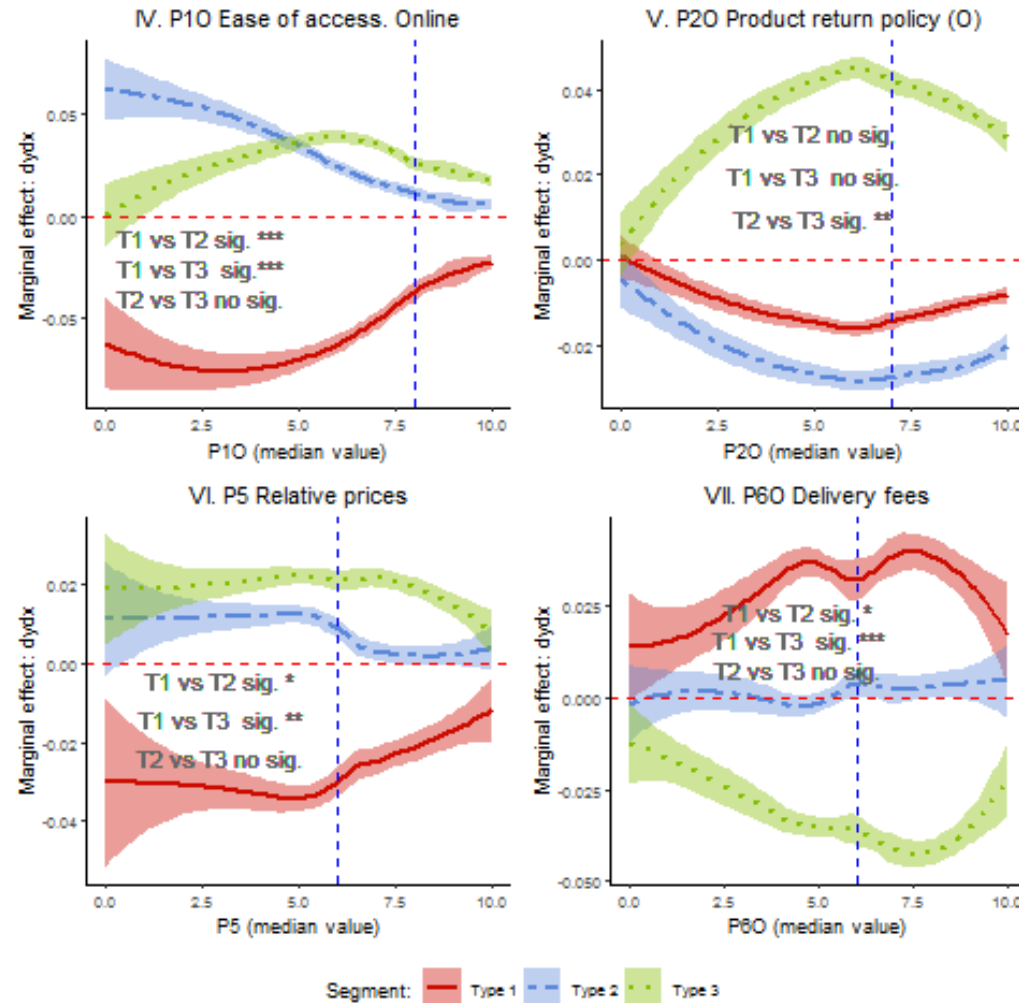


	<i>Dependent variable:</i>	
	Type 2	Type 3
S1S Convenience of location access point (S)	0.034 (0.092)	0.202** (0.095)
S1O Convenience of location access point (O)	-0.147 (0.124)	-0.107 (0.127)
S2S Product information (S)	-0.059 (0.164)	-0.180 (0.160)
S2O Product information (O)	-0.040 (0.177)	-0.171 (0.177)
S3S Assortment time of purchase (S)	-0.107 (0.153)	-0.159 (0.155)
S3O Assortment time of purchase (O)	0.024 (0.158)	-0.115 (0.157)
S4FS Assurance product in the desired form (S)	-0.088 (0.180)	-0.297 (0.183)
S4FO Assurance product in the desired form (O)	-0.196 (0.167)	0.194 (0.174)
S4TS Assurance of timely product delivery (S)	0.175 (0.183)	0.246 (0.186)
S4TO Assurance of timely product delivery (O)	0.009 (0.183)	0.077 (0.184)
S5S Shopping ambiance (S)	-0.384** (0.173)	-0.344* (0.177)
S5O Shopping ambiance (O)	0.134 (0.196)	0.244 (0.205)
P1S Ease of access according to location (S)	0.057 (0.112)	0.130 (0.110)
P1O Ease of access according to location (O)	0.358*** (0.125)	0.381*** (0.131)
P2S Product return policy (S)	-0.057 (0.151)	-0.034 (0.163)
P2O Product return policy (O)	-0.017 (0.124)	0.217 (0.137)
P3S Accepted modes of payment (S)	0.191 (0.178)	-0.011 (0.180)
P3O Accepted modes of payment (O)	0.155 (0.135)	0.181 (0.146)
P4O Online privacy and security policy (O)	0.109 (0.166)	0.190 (0.166)
P5 Price with respect to similar brands	0.246* (0.137)	0.280** (0.133)
P6O Shipping fees	-0.259* (0.147)	-0.382*** (0.143)
A1 Innovativeness (0;1)	0.647* (0.357)	1.123*** (0.336)
A2 Importance purchasing time	-0.076 (0.083)	-0.027 (0.082)
C1 Gender (Male) (0;1)	-0.865** (0.364)	-0.758** (0.338)
C2 Age	-0.008 (0.016)	-0.035** (0.016)
C3 Income (1 to 10)	0.029 (0.097)	0.286*** (0.088)
Constant	-0.199 (1.379)	-2.497* (1.345)

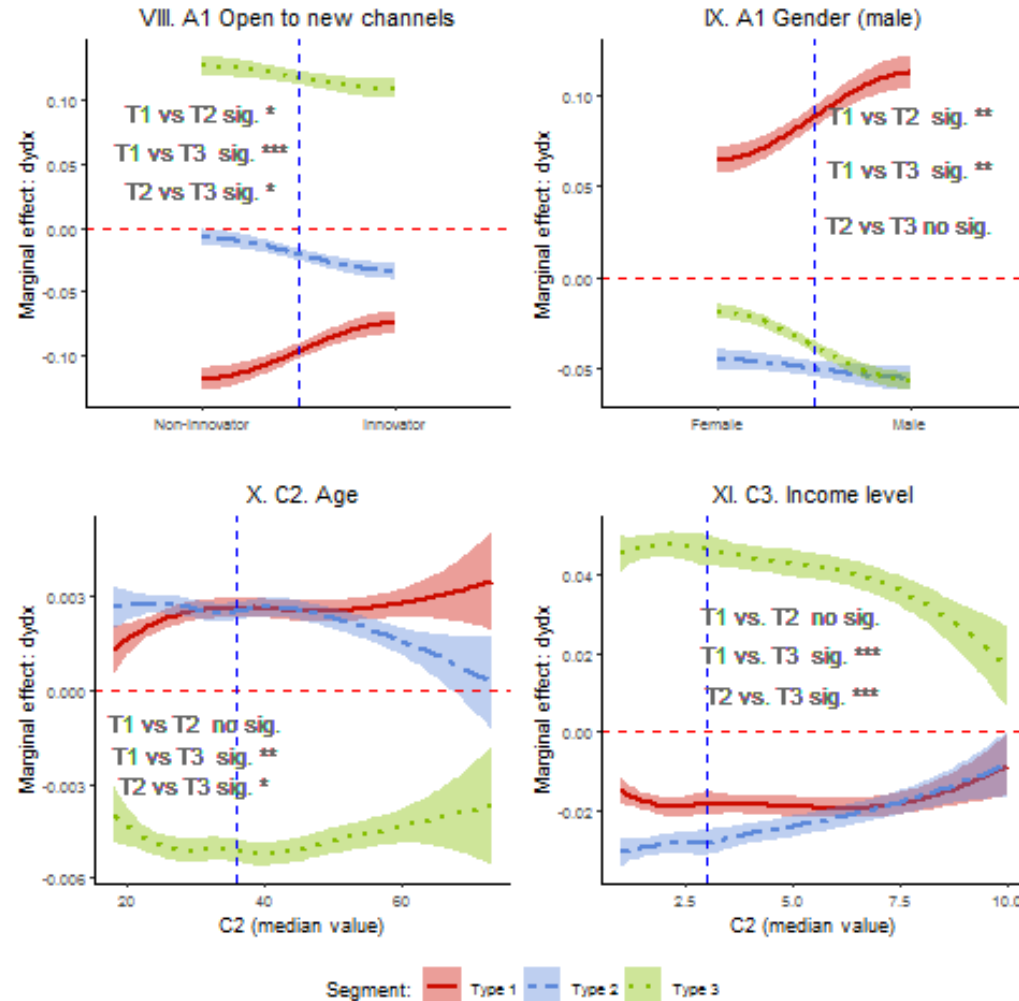
# Marginal Effects (I): Distribution Services



## Marginal Effects (II): Channel Policies



# Marginal Effects (III): Customer Characteristics



# Summary

## Type I: Monochannel Customers: Differences with the other two segments:

- Value better ambiance at the store ⬆ value provided by the store
- Value worse accessibility of the web page ⬇ visiting the web
- Value worse brand prices ⬇ shopping from the brand
- Value worst sending fees ⬇ shopping online
- Less innovators
- More men

## Type II: Omni-channel Users: Differences with the other two segments:

- Value worse assurance of product delivery in the desired form online ⬇ shopping online
- Value worse return policy online ⬇ shopping online
- Lower income

## Type III: Omni-channel Purchasers: Differences with the other two segments:

- Value more access to the product through the store ⬆ value of both channels, they can make use of the service in purchases through both channels
- Value more assurance of product delivery in the desired form online, online devolution policies and online sending fees ⬆ shopping online
- Personal characteristics: more innovative, younger and higher income levels

# Concluding remarks

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- › Conceptual definition of omnichannel behavior with managerial and research implications
- › Empirical application for fast fashion retailer useful in guiding decision making

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# Thank you



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