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Omnichannel Behaviour: Definitions and Covariables

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1. Motivation

► Complete development of online channels:

- ✓ Nearly full penetration of online channels in companies: e.g. Europe **80%** of companies were **selling online** using their own websites or apps (internal channels) (*Flash Eurobarometer 2016*)
- ✓ Consumers use a variety of tools in order to access these channel: e.g. Spain: **35%** of population (16-74 years) has **made a purchase online** in the last 3 months (**INE, 2016**), **31%** of consumers **compared prices using mobile phones** in store (**PwC, 2016**)

Aproximadamente 8.120.000 resultados (0,53 segundos)

Omnichannel integration is - required to succeed.

Anuncio www.accenture.com/Strategy ▾

Successful CMOs Align Channels To Growth And ROI. View The Report.

Outburst in the use of the term "OMNICHANNEL"

La clave del marketing omnichannel consiste en poder ver la experiencia a través de los ojos del consumidor. El marketing omnichannel pretende realizar una estrategia a través de distintos canales, integrada y consistente, anticipándose a lo que van a hacer los usuarios. 28 feb. 2015



Not only professional press

Google Scholar search results for "omnichannel". The search bar shows "omnichannel". The results are filtered by "Académico" (Academic) and show approximately 30 results in 0.05 seconds. A green box highlights the search results count "Aproximadamente 30 resultados (0,05 s)". Below the results, there are filters for "Artículos" (Articles), "Mi biblioteca" (My library), and date ranges from "Cualquier momento" to "Desde 2013". A green box highlights the date range "2005 — 2005". The results list includes a paper by MR VaR, AM Laundering, and others, and another by J Mikińska.

Google Scholar search results for "omnichannel". The search bar shows "omnichannel". The results are filtered by "Académico" (Academic) and show approximately 1,050 results in 0.03 seconds. A green box highlights the search results count "Aproximadamente 1.050 resultados (0,03 s)". Below the results, there are filters for "Artículos" (Articles), "Mi biblioteca" (My library), and date ranges from "Cualquier momento" to "Desde 2017". A green box highlights the date range "Desde 2017 — Desde 2016". The results list includes papers by K L Alawadi, PW Farris, and others, and Saghiri, R Wilding, C Mena, and M Bourlakis.



But, what exactly does "omnichannel" mean?

- › What does omnichannel **management** mean?
- › What does omnichannel **behavior** mean?

Omnichannel 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?: Unsolved questions**

- Which customers are omnichannel customers and which are not?
 - O1. Can we provide unambiguous rules for the classification?
 - What type of customers are omnichannel customers?
 - O2. Can we provide a sensible segmentation?



2. Conceptual Framework

Focus (I): One company studying its customers

- Manufacturer or retailer
- Two channels: brick and mortar and online store

► Focus (II): The demand of distribution channels

The provision of Distribution Services is the core function of distribution channels (Keh 1997; Betancourt et al 2007):

- ✓ Distribution Services are provided by retailers bundled with their products
- ✓ DS are inputs for satisfying consumers' production function
- ✓ DS are the main channel outputs
- ✓ Five broad categories: Accessibility to the product, Information, Breadth and Depth of assortment, Assurance of Product delivery in time and form and ambiance



Multichannel management

The multichannel operation of companies is based on the need to attend different demands of DS:



- 📍 Accessibility
- ℹ️ Information
- 🛒 Assortment: breadth and depth
- 🛡 Assurance of product delivery
(time and form)
- 😊 Ambiance

➤ The key role of separability

- ICT 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:



Omnichannel behavior

► Examples:

Example	Store	Web
A customer purchases at the company's retail store after getting information about the products in the company's web site	    	 
A customer purchases products at the company's web site and asks the product to be delivered to one retail store 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 either or both channels during the period of analysis.

➤ As a result, we define three types of customers in a certain period of time:

Purchase Channel	Service Channel	Type
●○ Monochannel Customer	●○ Monochannel User	Monochannel customer / monochannel user
●○ Monochannel Customer	●● Multichannel User	Partially Omnichannel Customer
●● Multichannel Customer	●● Multichannel User	Complete Omnichannel Customer

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

Empirical setting

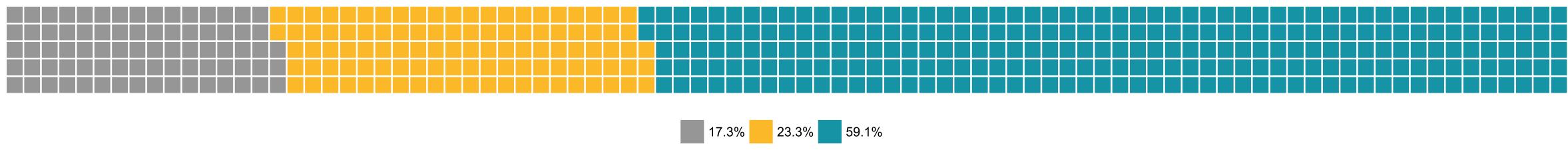
Population Definition: Customers of a well-known fast fashion retailer company

Online Panel Survey: 450 valid responses from 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, and (5) consumer characteristics

➤ Segmentation based on behavior in the last year: Results

Purchase Channel	Services	Type	Number	🏡	💻
● ○	● ○	Monochannel C.	78	63	15
● ○	● ●	Partially Omni C.	106	87	19
● ●	● ●	Complete Omni C.	266		



► Segmentation Analysis: Multinomial Logit Model

$$U_i = x_i \beta + u_i$$

where $i = 1, 2, 3$

$1 = Monochannel, 2 = Part. Omnichannel, 3 = Comp. Omnichannel$

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.



Results: Multinomial logit (I)

Variable		Partial		Complete	
		Mono	β	t val	β
Constant		-	-0.191	-0.139	-2.604
S1_S Convenience of location access point (S)		-	0.028	0.307	0.193
S1_W Convenience of location access point (W)		-	-0.144	-1.154	-0.102
S2_S Amount of product information (S)		-	-0.057	-0.347	-0.180
S2_W Amount of product information (W)			-0.053	-0.297	-0.192
S3_S Available assortment at time of purchase (S)		-	-0.108	-0.706	-0.169
S3_W Available assortment at time of purchase (W)		-	0.042	0.264	-0.088
S4F_S Assurance of desired mode of product delivery (S)		-	-0.077	-0.429	-0.266
S4F_W Assurance of desired mode of product delivery (W)		-	-0.191	-1.150	0.194
S4T_S Assurance of timely product delivery (S)		-	0.147	0.803	0.200
S4T_W Assurance of timely product delivery (W)		-	0.018	0.097	0.104
S5_S Shopping ambiance (S)		-	-0.357	-2.071	-0.291
S5_W Shopping ambiance (W)		-	0.134	0.685	0.221
P1_S Ease of access according to location (S)		-	0.066	0.589	0.145
P1_W Ease of access (W)		-	0.345	2.797	0.377
P2_S Compliance with product return policy (S)		-	-0.085	-0.564	-0.065
P2_W Compliance with product return policy (W)		-	-0.018	-0.149	0.198
P3_S Compliance with accepted modes of payment (S)		-	0.220	1.236	0.030
P3_W Compliance with accepted modes of payment (W)		-	0.143	1.073	0.170
P4_W Confidence in online privacy and security policy (W)		-	0.108	0.653	0.185
P5 Price differential with respect to similar brands		-	0.238	1.733	0.271
P6_W Transport cost differential with respect to similar brands		-	-0.251	-1.746	-0.379
A1 Innovativeness (0;1)		-	0.655	1.616	1.282
A2 Importance reducing purchasing time		-	-0.069	-0.834	-0.013
C1 Gender (Male) (0;1)		-	-0.823	-2.273	-0.693
C2 Age		-	-0.010	-0.614	-0.036
C3 Income (1 to 10)		-	0.029	0.298	0.282

Monochannel
Customers:
Differences with the
other two segments:

- Value better ambiance at the store
- Value worse accessibility of the web page
- Value better brand prices
- Value worst sending fees
- More men

chi Squared 218.719
df 52
p value 2.5e-22



Results: Multinomial logit (II)

Variable	Comp.	Mono		Partial	
		B	t val	B	t val
- Constant	-	2.604	1.923	2.412	1.953
S1_S Convenience of location access point (S)	-	-0.193	-2.026	-0.164	-2.320
S1_W Convenience of location access point (W)	-	0.102	0.804	-0.042	-0.416
S2_S Amount of product information (S)	-	0.180	1.125	0.123	0.960
S2_W Amount of product information (W)	-	0.192	1.081	0.139	0.934
S3_S Available assortment at time of purchase (S)	-	0.169	1.085	0.061	0.513
S3_W Available assortment at time of purchase (W)	-	0.088	0.561	0.130	1.054
S4F_S Assurance of desired mode of product delivery (S)	-	0.266	1.465	0.190	1.299
S4F_W Assurance of desired mode of product delivery (W)	-	-0.194	-1.113	-0.385	-2.810
S4T_S Assurance of timely product delivery (S)	-	-0.200	-1.072	-0.053	-0.363
S4T_W Assurance of timely product delivery (W)	-	-0.104	-0.563	-0.086	-0.584
S5_S Shopping ambiance (S)	-	0.291	1.644	-0.066	-0.542
S5_W Shopping ambiance (W)	-	-0.221	-1.079	-0.087	-0.535
P1_S Ease of access according to location (S)	-	-0.145	-1.316	-0.080	-0.922
P1_W Ease of access (W)	-	-0.377	-2.915	-0.032	-0.286
P2_S Compliance with product return policy (S)	-	0.065	0.398	-0.020	-0.149
P2_W Compliance with product return policy (W)	-	-0.198	-1.453	-0.217	-1.870
P3_S Compliance with accepted modes of payment (S)	-	-0.030	-0.167	0.190	1.225
P3_W Compliance with accepted modes of payment (W)	-	-0.170	-1.173	-0.027	-0.215
P4_W Confidence in online privacy and security policy (W)	-	-0.185	-1.105	-0.077	-0.559
P5 Price differential with respect to similar brands	-	-0.271	-2.020	-0.033	-0.326
P6_W Transport cost differential with respect to similar brands	-	0.379	2.686	0.127	1.327
A1 Innovativeness (0;1)	-	-1.282	-3.379	-0.627	-2.185
A2 Importance reducing purchasing time	-	0.013	0.152	-0.056	-0.906
C1 Gender (Male) (0;1)	-	0.693	2.050	-0.130	-0.444
C2 Age	-	0.036	2.288	0.026	1.900
C3 Income (1 a 10)	-	-0.282	-3.179	-0.253	-3.264

Complete
Omnichannel
Customers:
Differences with the
other two segments:

- ✓ Value more access to the product through the store: they can make use of the service in purchases through both channels
- ✓ Personal characteristics: more innovative, younger and higher income levels



Results: Multinomial logit (III)

Variable	Part.	Mono		Complete	
		B	t val	B	t val
- Constant	-	0.191	0.139	-2.412	-1.953
S1_S Convenience of location access point (S)	-	-0.028	-0.307	0.164	2.320
S1_W Convenience of location access point (W)	-	0.144	1.154	0.042	0.416
S2_S Amount of product information (S)	-	0.057	0.347	-0.123	-0.960
S2_W Amount of product information (W)	-	0.053	0.297	-0.139	-0.934
S3_S Available assortment at time of purchase (S)	-	0.108	0.706	-0.061	-0.513
S3_W Available assortment at time of purchase (W)	-	-0.042	-0.264	-0.130	-1.054
S4F_S Assurance of desired mode of product delivery (S)	-	0.077	0.429	-0.190	-1.299
S4F_W Assurance of desired mode of product delivery (W)	-	0.191	1.150	0.385	2.810
S4T_S Assurance of timely product delivery (S)	-	-0.147	-0.803	0.053	0.363
S4T_W Assurance of timely product delivery (W)	-	-0.018	-0.097	0.086	0.584
S5_S Shopping ambiance (S)	-	0.357	2.071	0.066	0.542
S5_W Shopping ambiance (W)	-	-0.134	-0.685	0.087	0.535
P1_S Ease of access according to location (S)	-	-0.066	-0.589	0.080	0.922
P1_W Ease of access (W)	-	-0.345	-2.797	0.032	0.286
P2_S Compliance with product return policy (S)	-	0.085	0.564	0.020	0.149
P2_W Compliance with product return policy (W)	-	0.018	0.149	0.217	1.870
P3_S Compliance with accepted modes of payment (S)	-	-0.220	-1.236	-0.190	-1.225
P3_W Compliance with accepted modes of payment (W)	-	-0.143	-1.073	0.027	0.215
P4_W Confidence in online privacy and security policy (W)	-	-0.108	-0.653	0.077	0.559
P5 Price differential with respect to similar brands	-	-0.238	-1.733	0.033	0.326
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A1 Innovativeness (0;1)	-	-0.655	-1.616	0.627	2.185
A2 Importance reducing purchasing time	-	0.069	0.834	0.056	0.906
C1 Gender (Male) (0;1)	-	0.823	2.273	0.130	0.444
C2 Age	-	0.010	0.614	-0.026	-1.900
C3 Income (1 a 10)	-	-0.029	-0.298	0.253	3.264

Partially Omnichannel

Customers: Differences with the other two segments:

- Differences with monochannel customers: ambiance at the store, accessibility of the web, prices and sending fees → Prevent them from visiting the web
- Differences with complete omnichannel customers: Access to the final product through the store, assurance of product delivery in form and return policy → Key service in purchasing
- Demographics



4. Concluding Remarks

➤ Conclusions and Implications:

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

Open Questions

- > Role of prices for monochannel customers
- > Differences in demographics
- > Future lines: financial implications ➔ differences between partial and complete omnichannel customers

More questions?

Thank you!



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