Does social exclusion influence multiple channel use? The interconnections with community, happiness, and well-being

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ABSTRACT

This paper examines how social exclusion affects consumer use of multiple shopping channels (traditional stores, online by computer and mobile retailing by cell phone) and how these choices affect consumers' happiness and wellbeing. The findings from an online survey ($n = 1368$) in the United States indicate that socially-excluded people spend more time shopping by all three channels, with the most significant being the cell phone. The latter channel is also more significant for younger respondents and for those who report a mobility/disability issue. Time spent on traditional store shopping and shopping by cell phone both have significant positive effects on happiness and wellbeing. Shopping by cell phone significantly ameliorates the negative effects of social exclusion on happiness and wellbeing for consumers with mobility/disability issues. The paper also includes practical implications for retail marketing managers' and policy makers' communication strategies.

1. Introduction

For decades, retailers and researchers have been aware that shopping is not just about obtaining tangible products but also enjoyment and socializing (Tauber, 1972), which can positively contribute to customers' well-being. Within the context of the network economy in which technological advances have made shopping via a number of different online channels possible, societal challenges may impact customers' access to retail channels, which in turn can facilitate or inhibit the benefits customers receive. The objective of this paper is to study how social exclusion affects the use of multiple shopping channels (traditional store, web-based via the user's computer and mobile/cellphone) and how shopping behavior affects consumer happiness and well-being, elaborating on the premise that people who are socially excluded may have lower happiness and well-being. Therefore, the three shopping channels can cater to shoppers with different needs (e.g., socially excluded), and a comparison of these three channels reveals differences between various consumer groupings. The current article follows Rutledge, Skandalia, Dayan, and Dolan (2014) in considering happiness and well-being to be a single, conceptually one-dimensional construct, as perceived well-being strongly relates to an individual's level of happiness. Technology and electronic retailing may offer alternative means for alleviating underlying obstacles, partly offsetting the negative impact of social exclusion. For example, using a computer or cellphone could make shopping easier for those with mobility/disability issues (referred to as disability hereafter for conciseness), yet may also have the opposite effect of isolating individuals. Those in financial distress may prefer a cheaper channel. This work explores these conflicting ideas, examining the relative importance of the three channels and offering insights for academics and practitioners. Hence, this study elicits the distinctive role of the separate channels. Findings could be of interest considering the emergence of omnichannel retailing, where consumers switch from one channel to another when buying products and engage in related activities (e.g., placing orders, product deliveries) using fully integrated, cross-channel systems (Cunnane, 2012).

2. Theoretical foundations and hypotheses development

2.1. Social exclusion

Researchers report social exclusion in terms of widely different dimensions. Atkinson (1998) notes four elements: (1) multiple

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deprivation: more than being financially poor or unemployed, this element includes not having a community or the ability to interact socially; (2) relativity: measured for people excluded from society at a specific place and time; (3) agency: where people or agents experience either voluntary or involuntary exclusion; and (4) dynamics: where people could become unemployed, experience financial pressure, or have fewer opportunities to prosper in the future. Burchardt, Le Grand, and Piachaud (1999), p. 229 incorporate the first three elements in their definition of social exclusion: "an individual is socially-excluded if (a) he or she is geographically resident in a society, (b) he or she cannot participate in the normal activities of citizens in that society, and (c) he or she would like to participate but is prevented from doing so by factors beyond his or her control."

In the preceding definition, "geographically resident" suggests "how the physical distancing of certain individuals, groups and communities from social and cultural facilities compounds their isolation and exclusion" (Williams & Hubbard, 2001, p. 268). Similarly, "normal" activities represent areas where people can involve themselves, such as consumption, production, political engagement, and social interaction (Burchardt et al., 1999). The present study adopts Burchardt et al.'s (1999) definition of social exclusion with respect to a lack of participation in social support, companionship, and access to goods and services (but not political exclusion, which is beyond the scope of the study). In essence, this work concerns exclusion from socially valued activities (Huxley et al., 2012). This focus highlights conceptual boundaries and necessarily eschews other understandings of social exclusion, such as person-to-person lack of inclusion, by being ignored, rejected, not wanted, or liked (Lee & Shrum, 2012).

2.2. Causes of social exclusion and their effects on shopping and well-being

Causes of social exclusion that affect social support, companionship, and access to goods and services include disability (Stanley, Hensher, Stanley, & Vella-Brodrick, 2011); financial distress (Prawitz et al., 2006); age (Teller, Gittenberger, & Schnedlitz, 2013); and area of residence (Wrigley, Guy, & Lowe, 2002). These issues have a range of negative effects on happiness and well-being (Prawitz et al., 2006), constituting the basis of this study.

Disability often excludes people from the benefits of shopping and socializing (Jones, Rovner, Crews, & Danielson, 2009), leading to lower happiness and well-being (Diener, Lucas, & Scollon, 2006). Lower well-being may also be the result of not being able to maintain a key household role, such as responsibility for grocery shopping (Elms & Tinson, 2012). Online shopping may help ameliorate negative effects by offering disabled consumers a wider range of products or the opportunity to participate in different communities in order to make more informed decisions (Annett-Hitchcock & Xu, 2015). Hence, online shopping could positively contribute to happiness and well-being and provide opportunities for shoppers with disabilities (Childers & Kaufman-Scarborough, 2009). Nevertheless, these shoppers may face numerous challenges depending on their disability. For example, Schaefer (2003, p. 224) notes that "a blind person who uses screen-reader software to shop online may not be disabled until he or she encounters graphics that are not embedded with textual explanations."

Financial distress can reduce consumers' shopping spending by restricting resources (Darko, Eggett, & Richards, 2013), contribute to social exclusion, and negatively affect well-being (Prawitz et al., 2006). Unfortunately, the digital divide and lack of Internet access may negatively affect the ability of financially distressed people to take advantage of online channels (Cresci, Yarandi, & Morrell, 2010).

Age and mobility issues often exclude older people from the benefits of shopping and socializing (Jones et al., 2009). However, online shopping may be less useful, because old age can deter acceptance of technology (Dabholkar & Bagozzi, 2002) and older people are less likely to use a cellphone to get online (Duggan & Smith, 2013). In comparison,

young adults regard the social and fun aspects of shopping as important (Lueg, Ponder, Beatty, & Capella, 2006).

Area of residence might restrict shoppers' access to stores, such that they tend to suffer from reduced well-being (Larson, Story, & Nelson, 2009). Rural residents tend to have limited choices of retail outlets (Schuetz, Kolko, & Meltzer, 2012) and suffer from poorer well-being (Eberhardt & Pamuk, 2004). Rural residents travel farther to reach stores and may improve their access to goods and services by shopping online by computer and cellphone, alleviating social exclusion more for rural residents than for urban ones, assuming that reliable coverage exists.

Prior studies address the negative relationships between access to transport and traditional retail stores (Wrigley et al., 2002) and well-being (Larson et al., 2009). However, urban residents may face similar difficulties (Pucher & Renne, 2005). Given that social exclusion may influence many factors related to retailing, the nature of the exclusion may affect the adoption and use of a channel. For instance, mobility issues may exclude disabled people from the benefits of traditional shopping and socializing (Jones et al., 2009). Specifically, a store's lack of facilities for disabled shoppers could inhibit motivations to visit the store (Baker, Gentry, & Rittenburg, 2005). Consumers with physical disabilities may have to employ specific strategies to shop in-store (Elms & Tinson, 2012). Various countries have introduced legislation to address these issues (e.g. United States, see Baker & Kaufman-Scarborough, 2001; Kaufman-Scarborough, 1999; United Kingdom, see Baker, Holland, & Kaufman-Scarborough, 2007). However, further initiatives may be necessary to accommodate various disabilities (see Baker & Kaufman-Scarborough, 2001; Schaefer, 2003). Companies, policy makers, and various stakeholders tend to follow a one-size-fits-all approach (Baker, Stephens, & Hill, 2001), yet all people with disabilities are not the same (e.g., visual impairment, see Baker, 2006; Childers & Kaufman-Scarborough, 2009; Kaufman-Scarborough & Childers, 2009). Financial distress (Taylor, Jenkins, & Sacker, 2011), age (Jones et al., 2009), and rural residence (Larson et al., 2009) may also prevent consumers from participating and can have negative effects on happiness and well-being. Therefore, if customers face access or mobility challenges, they may turn to online channels to counteract them (MacInnis & Price, 1987).

The use of cellphones to access the Internet is growing rapidly; some 57% of U.S. adults use this device (the main route online for 33% of them) (Duggan & Smith, 2013). Cellphone shopping is now a distinct online channel, offering features such as mobility, reachability (Wei, Marthandan, Chong, Ooi, & Arumugam, 2009), and shopping value through the touchscreen interface (Basel & Gips, 2014). Cellphone shopping may now join computer online shopping as a route for alleviating underlying obstacles of social exclusion, especially for consumers with accessibility issues. Individuals can shop via their cellphone using Internet-connected devices with built-in browsers or by using smartphones that may support the bespoke retail apps.

These arguments suggest that the more socially excluded consumers are, the more time (and probably money) they spend on shopping by each of the three channels. In contrast, some conditions may moderate or reverse this relationship (e.g., financially distressed consumers have less money to spend; older shoppers may shop less online; old, disabled, and rural shoppers may be less likely to go out to traditional stores).

Despite studies analyzing various facets of multichannel shopping behavior, including consumer drivers of channel choice (Schoenbachler & Gordon, 2002), multichannel shopper segments (Konus, Verhoef, & Neslin, 2008), the role of specific channels, and their interrelationships with consumer choice (Farag, Schwanen, Dijst, & Faber, 2007), to the authors' knowledge, the role of social exclusion in multichannel consumer behavior has yet to be examined.

Controlling for confounding factors such as income, this study operationalized spending as the proportion of total shopping spending on each of the three channels, so the sum of the proportions cannot be greater than 100% for all three channels. Bearing in mind the mobility, reachability, and shopping value of the touchscreen interface, cellphone

shopping has the highest potential to alleviate social exclusion; therefore, an association will exist between higher social exclusion (for reasons other than financial distress) and a greater proportion of shopping spending by cellphone (without making any prediction for proportions of shopping expenditures by computer or in store). Disability, financial distress, age, and area of residence can potentially moderate the relationships.

H1: The more socially excluded consumers are, the more time they spend on shopping using a cellphone compared with consumers who are less socially excluded, and the higher proportion of their shopping expenditures they spend on shopping using a cellphone. Moderation effects suggest that this influence is greater for shoppers who (a) suffer disability issues, (b) experience less financial distress, (c) are younger in age, and (d) live in rural areas.

H2: The more socially excluded consumers are, the more time they spend on shopping using a computer compared with consumers who are less socially excluded. Moderation effects suggest this influence is greater for shoppers who (a) suffer disability issues, (b) are experiencing less financial distress, (c) are younger, and (d) live in rural areas.

Socially excluded consumers can also feel motivated to spend more time on traditional shopping as a route to greater inclusion, interacting with others, and generating activities to fill their time. Nevertheless, financial distress, disability, old age, and rural residence can reduce or reverse this effect.

H3: The more socially excluded consumers are, the more time they spend on traditional store shopping compared with consumers who are less socially excluded. Moderation effects suggest this influence is greater for shoppers (a) without disability issues, (b) who are experiencing less financial distress, (c) who are younger, and (d) who live in urban areas.

2.3. Consumers' happiness and well-being

Traditional shopping can increase happiness and well-being (Hedhli, Chebat, & Sirgy, 2013). Cellphone shopping should similarly positively contribute. First, cellphones accompany users while on the move. Second, the shopping value of the touchscreen interface of a smartphone can rival that of real products (Basel & Gips, 2014).

With the increase in multichannel retailing, consumers' perceived quality of a retailer's offline operations affects the perceived quality of their online operations (Yang, Lu, Zhao, & Gupta, 2011) and vice versa, as online shopping can provide lower prices and higher convenience (Papagiannidis, Pantano, See-To, & Bourlakis, 2013). Early studies suggest that online shopping offers little experiential value (Mathwick, Malhotra, & Rigdon, 2001). However, more recent findings indicate that online shopping evokes affective processing (Bruner & Kumar, 2005) and has recreational value (Fiore, Jin, & Kim, 2005). Online shopping is hitting record levels (with growth led by mobile devices, reaching over half of total online shopping by the end of 2014; IBM, 2015). The growth offers potential to offset physical access difficulties, for example, playing a role in providing housebound shoppers with social benefits (Parsons, 2002) and may thus lead to greater happiness and well-being. Shopping by all three channels is likely to be associated with increased happiness and well-being. This option is particularly relevant for shoppers who are socially excluded by their disability, who should gain more happiness and well-being benefits from online shopping. Consumers who are socially excluded by financial distress instead will be less able to afford to shop and have less access to happiness and well-being benefits of shopping. As mentioned previously, this study operationalizes spending as the proportion of total spending on shopping via each of the three channels, so hypothesizing a higher proportion of spending to increase happiness and well-being for all three channels would be illogical. In view of the mobility, reachability, and shopping value of the touchscreen interface, cellphone shopping has the highest potential to contribute to happiness and well-being; therefore, a potential association exists between a higher proportion of spending on shopping by cellphone and higher happiness and well-

being (without any prediction for the influence of proportion of shopping expenditure by computer or in-store shopping).

H4: A positive association occurs between time and proportion of money spent shopping using a cellphone and happiness and well-being. Moderation effects suggest this influence is (a) greater for shoppers with disability issues and (b) smaller for shoppers experiencing higher financial distress.

H5: A positive association occurs between time spent shopping online using a computer and happiness and well-being. Moderation effects suggest this influence is (a) greater for shoppers with disability issues and (b) smaller for shoppers experiencing higher financial distress.

H6: A positive association occurs between time spent using traditional store shopping and happiness and well-being.

Fig. 1 provides an illustration of the conceptual model.

3. Method

3.1. Data collection and sampling

The study employed an online survey in the United States. A market research company recruited participants to control quotas for gender, age, and area of residence (n = 1368) (Table 1). A two-item, seven-point scale adapted from Shepherd (1999) defined and measured disability issues, reflecting the degree to which an individual encounters issues or symptoms on a continual basis that may require practical social support (Table 2). Responses to eight items (Prawitz et al., 2006), on 1 to 7 scales, assessed the degree to which financial distress affects respondents' day-to-day activities. Four items for social exclusion reflect loneliness and lack of social interaction (Huxley et al., 2012; Lim & Kim, 2011). The time in hours and proportion of shopping expenditures in each channel each include only a single, concrete aspect, so single-item scales measured respondents' actual behavior (Rossiter, 2002), adopted from Liu and Forsythe (2011). Finally, a four-item, seven-point scale adapted from Tinkler and Hicks (2011) and Waldron (2010) measured happiness and well-being (Table 2).

3.2. Analysis

The procedure examines the influence of social exclusion and time spent shopping in each channel per week (and alternatively, proportion of money spent on the channel) on happiness and well-being. The model illustrates the hypotheses from a multichannel vantage point. To examine support, the analysis employs the Hayes PROCESS macros in IBM SPSS Statistics (v21) to evaluate the paths and moderations (Hayes, 2013). In line with the Hayes procedure, the method includes a direct path from social exclusion to happiness and well-being. First, the analysis involves a regression of direct and indirect predictors of happiness and well-being without moderators (Hayes Model 4), reported at the top of Table 3. Where possible, moderators were treated as scale variables (disability, financial distress and age), operationalized in the schematic regression model in Fig. 2 (Hayes Model 59), reported in Table 3. For consistency, the same model applied for area of residence, but with only three categories, this moderator was necessarily dichotomized.

In terms of collinearity, the tolerance figures (linear regression) for the number of hours spent shopping using cellphone, computer, and traditional shopping are .519, .560, and .572, respectively, indicating that collinearity is not a problem in the model.

4. Results

4.1. Channel comparison

The more socially excluded consumers are, the more time ($b = .459$, $t = 15.13$, $p < .001$) and proportion of spending ($b = 3.97$, $t = 14.80$, $p < .001$) they assign to cellphone shopping (H1). They also spend more time ($b = .241$, $t = 8.93$, $p < .001$) (H2) and proportion of
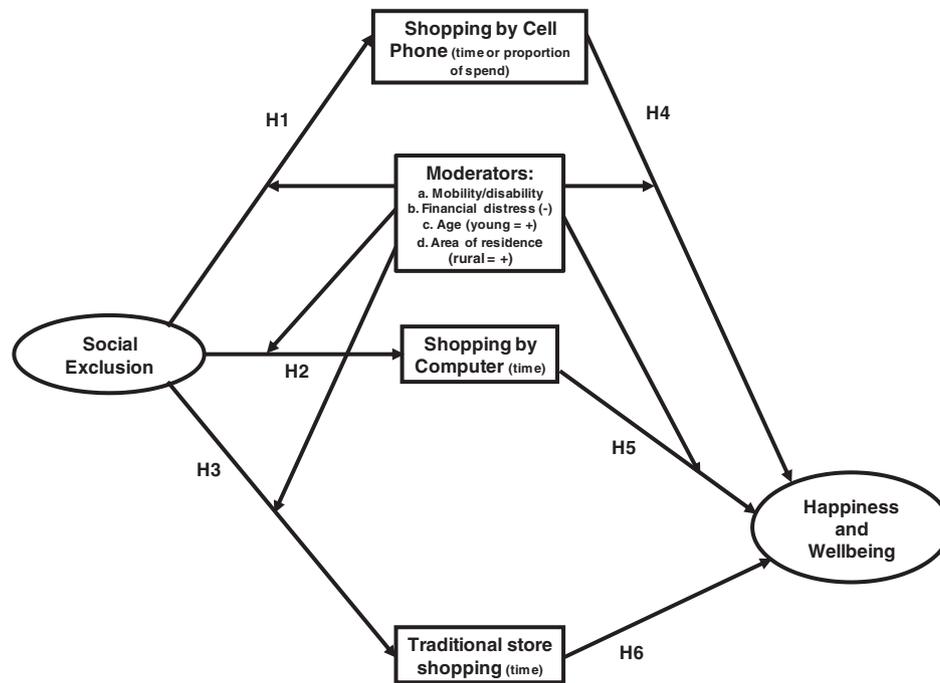
Fig. 1. Conceptual model. Note: Moderators simplified for clarity (c. and d. are not hypothesized to influence paths H4 and H5).

spending on computer shopping (see note under Table 3) and more time ($b = .200, t = 7.34, p < .001$) (H3) but a lower proportion of spending ($b = -5.86, t = -13.87, p < .001$) on traditional shopping.

The results suggest a positive association between cellphone shopping ($b = .133, t = 4.19, p < .001$) hours per week with happiness and well-being, though the influence of the proportion of spending is non-significant (H4 partially supported). The effect of shopping by computer on happiness and well-being is non-significant (H5 rejected). The association between traditional shopping ($b = .178, t = 5.40, p < .001$) hours per week with happiness and well-being is also positive (H6), though the influence of the proportion of spending is non-significant.

Social exclusion impacts negatively on happiness and well-being; however, traditional store (indirect effect .036) and, particularly, cellphone shopping (indirect effect .061) partly ameliorate the influence compared with the direct effect of $-.112$. In all the results, including the moderations, the capacity of computer online shopping to ameliorate negative effects of social exclusion on happiness and well-being is small, non-significant, or negative, so the discussion omits detailed comments (findings appear in Table 3).

4.2. Moderation effects

The next step examines the moderation effects of disability, financial distress, age, and area of residence. In the interest of clarity, the analysis excludes the proportion of spending variables from moderation tests, because the proportion of spending on the three channels has non-significant effects on happiness and well-being (direct and indirect).

4.2.1. Disability

The results suggest an association between greater disability issues with significantly lower happiness and well-being ($b = -.147, t = -7.62, p < .001$). The effect of social exclusion on time spent on cellphone shopping (interaction $b = .055, t = 3.52, p < .001$) (H1a), shopping by computer (interaction $b = .041, t = 2.93, p < .01$) (H2a), and traditional store shopping (interaction $b = .045, t = 3.16, p < .01$) (H3a rejected) is significantly stronger with greater disability.

As noted, social exclusion negatively affects happiness and well-being, but cellphone shopping ameliorates these effects. Disability moderates this amelioration effect significantly (interaction $b = .039, t = $

$2.47, p < .05$), such that the amelioration of the negative effect of social exclusion on happiness and well-being by cellphone shopping is significantly stronger for those reporting a higher disability issue (H4a). In addition, the degree of mediation of the negative effect of social exclusion on happiness and well-being by cellphone shopping is significantly greater with higher disability (direct path interaction $b = .043, t = 3.62, p < .001$). For no disability, the total effect of social exclusion is .219, at the mean is .124, and at one standard deviation (sd) above the mean is .008. For those with high disability (1 sd above the mean), the amelioration of the negative effect of social exclusion on happiness and well-being is (on average) 26 times that for someone with no disability.

Yet disability does not significantly moderate the influence of computer shopping (interaction $b = -.019, t = -1.19, p > .05$) on happiness and well-being (H5a rejected). Similarly, disability does not significantly moderate the influence of traditional shopping (interaction $b = -.0004, t = -.02, p > .05$) on happiness and well-being.

These moderation tests indicate considerable potential for cellphone shopping (but not computer or traditional shopping) to ameliorate the negative effects of social exclusion on happiness and well-being for consumers suffering a disability/mobility issue.

4.2.2. Financial distress

The findings suggest an association between higher financial distress with significantly lower happiness and well-being ($b = -.378, t = -20.63, p < .001$). The effect of social exclusion on time spent on cellphone shopping (interaction $b = -.082, t = -4.18, p < .001$) (H1b), shopping by computer (interaction $b = -.042, t = -2.39, p < .05$) (H2b), and traditional shopping (interaction $b = -.057, t = -3.19, p < .01$) (H3b) is significantly stronger with lower financial distress. Financial distress does not moderate significantly the effects of shopping by cellphone (interaction $b = -.015, t = -.90, p > .05$), computer (interaction $b = -.033, t = -.21, p > .05$), and traditional shopping (interaction $b = -.022, t = -1.37, p > .05$) on happiness and well-being (H4b and H5b rejected).

4.2.3. Age

The analysis treats age as a scale moderator (five-category ordinal variable; the Hayes macro estimates bias-corrected coefficients from 1000 bootstrap samples without normal distribution assumptions;

Table 1
Respondents' demographic and socioeconomic profile.

Characteristic	Frequency	%	Characteristic	Frequency	%
Gender			Age		
Male	600	43.9%	20–29	200	14.6
Female	768	56.1%	30–39	267	19.5
Employment status			40–49	208	15.2
Full–time employed	580	42.4%	50–59	256	18.7
Part–time employed	169	12.4%	60 or over	437	31.9
Out of work (looking for work)	69	5.0%	Area of residence		
Out of work (not looking for work)	11	0.8%	Urban (50,000+)	476	34.8%
Homemaker	165	12.1%	Small town (2,500–50,000)	451	33.0%
Student	29	2.1%	Rural (2,500)	441	32.2%
Retired	280	20.5%	Educational attainment		
Unable to work	65	4.8%	Some high school or less	7	0.5%
Ethnicity			High school graduate or equivalent	256	18.7%
African American	105	7.7%	Vocational / technical school	123	9.0%
Native American	61	4.5%	Some college but no degree	331	24.2%
Anglo American	671	49.0%	College graduate	334	24.4%
Asian American	67	4.9%	Some graduate school	69	5.0%
Hispanic American	68	5.0%	Graduate degree	205	15.0%
Multiracial	19	1.4%	Professional degree	43	3.1%
Non–US white	156	11.4%	Income		
Other	221	16.2%	$0–$24,999	188	13.8%
			$25,000–$49,999	396	29.1%
			$50,000–$74,999	344	25.2%
			$75,000–$99,999	234	17.2%
			More than $100,000	201	14.7%

Disability (Shepherd, 1999)							Mobility (Shepherd, 1999)						
No disability issues						Encounter severe symptoms on a continual basis which may require a great deal of practical social support	No mobility issues						Encounter severe symptoms on a continual basis which require a great deal may of practical social support
1	2	3	4	5	6	7	1	2	3	4	5	6	7
Freq 677	162	69	139	135	115	71	752	163	80	113	116	82	62

Financial distress (Source: Prawitz et al., 2006)							
	O verwhelming financial distress* Not at all satisfied** Very often*** Not at all confident****						No financial distress Very satisfied Never Very confident
	*Statements 1,3,8,	** Statement 2,	*** Statements 4,6,7,			**** Statement 5	
	1	2	3	4	5	6	7
What do you feel is the level of your financial distress today	94	125	185	294	238	239	193
How satisfied are you with your present financial situation?	159	142	165	242	251	233	176
How do you feel about your current financial situation?	108	130	187	283	251	233	176
How often do you worry about being able to meet normal monthly living expenses?	167	114	157	267	171	240	252
How confident are you that you could find the money to pay for a financial emergency that costs about $1,000	156	77	80	196	202	198	459
How often does this happen to you? You want to go out to eat, go to a movie or do something else and don't go because you can't afford to.	166	114	144	206	217	209	312
How frequently do you find yourself just getting by financially and living paycheck to paycheck?	244	133	137	250	163	164	277
How stressed do you feel about your personal finances in general?	123	146	196	279	199	239	186

Table 2
Definitions and measures of constructs.

Construct	Definition	Source
Social Exclusion ($\alpha = 0.945$)	Lack of participation in social support, companionship and access to goods and services.	(Burchardt, Le Grand & Piachaud, 1999)
Well-being ($\alpha = 0.923$)	Well-being describes the cognitive evaluations of one's life, happiness, satisfaction, positive emotions such as joy and pride, and negative emotions such as pain and worry.	(Waldron, 2010)
Mobility / Disability ($\alpha = 0.921$)	The degree to which respondents encounter severe symptoms on a continual basis which may require a great deal of practical social support.	(Shepherd, 1999)
Financial Distress ($\alpha = 0.948$)	Perceived financial condition and its effect on individuals 'and their families' worry in relation to day-to-day activities.	(Prawitz et al., 2006)
Area of residence	The geographical area in which respondents reside: "*how the physical distancing of certain individuals, groups and communities from social and cultural facilities compounds their isolation and exclusion*".	(Williams & Hubbard, 2001)

Construct	Source	Loading
Social exclusion		
I do not have access to goods and services.	(Huxley et al., 2012)	0.814
There is no one I can turn to if I need support.	(Lim & Kim, 2011)	0.948
I feel left out.		0.933
I lack companionship.		0.914
Happiness and Well-being		
Your day-to-day activities (including work or studies).	(Waldron, 2010)	0.851
Leisure activities / hobbies.		0.804
Your ability to influence what happens in your life.		0.865
Achieving your goals.		0.891
Overall, how satisfied are you with your life?	(Tinkler & Hicks, 2011)	0.789

Hayes, 2013). The results do not suggest a direct association between age with happiness and well-being ($b = .0003$, $t = .01$, $p > .05$). The effect of social exclusion on time spent cellphone shopping (interaction $b = -.103$, $t = -5.11$, $p < .001$) (H1c), shopping by computer (interaction $b = -.05$, $t = -2.62$, $p < .01$) (H2c), and traditional shopping (interaction $b = -.102$, $t = -5.58$, $p < .001$) (H3c) is significantly stronger for younger shoppers. Age does not moderate significantly the amelioration of the negative effects of social exclusion on happiness and well-being by cellphone (interaction $b = .193$, $t = .95$, $p > .05$), computer (interaction $b = -.021$, $t = -1.01$, $p > .05$), and traditional shopping (interaction $b = .004$, $t = -.17$, $p > .05$).

However, age moderates significantly the direct effect of social exclusion on happiness and well-being (interaction $b = -.091$, $t = -.56$, $p < .001$), such that for younger people (1 sd below mean age, or approximately 33 years old), the total effect of social exclusion on happiness and well-being is only $-.009$, at the mean age (approximately 48 years) is $-.178$, and for older people (1 sd above the mean, or approximately 62 years) it is $-.350$ (approximate ages estimated from categorical data). The negative effect of social exclusion on happiness and well-being is significantly greater for older people compared with younger ones.

4.2.4. Urban vs. rural

Area of residence comprised three levels (urban, small town, and rural), so the analysis concatenated the categories to form a dichotomous moderator. The effect of urban versus other areas on happiness and well-being is non-significant, and moderation of the shopping paths is minimal with each possible dichotomous treatment. In the interest of brevity, these findings report only urban versus rural plus small town residence (referred to as urban versus rural for simplicity). The results suggest no direct association between area of residence and happiness and well-being ($b = -.031$, $t = -.48$, $p > .05$).

Area of residence does not moderate significantly the effects of social exclusion on time spent shopping for either cellphone shopping (interaction $b = -.117$, $t = -1.87$, $p > .05$) or traditional shopping (interaction $b = -.058$, $t = -1.03$, $p > .05$) (H1d and H3d rejected). The effect of social exclusion on time spent shopping by computer (interaction $b = -.114$, $t = -2.06$, $p < .05$) is significantly stronger for urban rather than rural shoppers (H2d rejected).

In addition, area of residence does not moderate the amelioration effects of cellphone (interaction $b = -.053$, $t = -.84$, $p > .05$), computer (interaction $b = -.102$, $t = -1.73$, $p > .05$), and traditional (interaction $b = -.004$, $t = -.06$, $p > .05$) shopping. Yet area of residence moderates significantly the direct effect of social exclusion on happiness and well-being (interaction $b = -.107$, $t = -2.19$, $p < .05$), such that the negative effect of social exclusion on happiness and well-being is significantly greater for rural (direct effect .250) than urban (direct effect .143) shoppers.

To illustrate the results, a single model in Fig. 3 (Hayes Model 75) combines shopping channel variables that have significant effects on happiness and well-being (time spent shopping by cellphone and traditional shopping), plus moderators that significantly moderate shopping channel paths (disability and financial distress).

5. Discussion

This study confirms the positive influence of time spent shopping on happiness and well-being, extending from traditional store shopping to online shopping by cellphone (but not by computer). The results demonstrate the role of social exclusion in shopping and well-being. Respondents who feel socially excluded tend to spend more time shopping using all three channels considered. This finding may indicate that shopping provides an opportunity to "escape" from social reality, to feel connected and perform regular activities like shopping. The reconnection is particularly strong for cellphone shopping. This outcome is unique; to date, individuals have considered traditional shopping the route to connect with others and improve well-being. The results suggest that online shopping by cellphone can have a similar social role as physical shopping. The use of mobile devices such as cellphones for online shopping can help consumers overcome social exclusion challenges. However, shopping online by computer does not demonstrate the same effect. The findings illustrate the pervasive role of cellphones and mobile

Table 3

Predictors of happiness and well-being and moderation tests.

Model	b	SE	t	Moderator (Refer to the respective column)	Disability b	SE	t
Predictors of happiness and well–being	R² = .124			Predictors of happiness and well–being	R² = .178		
Constant	4.59	.149	30.81***	Constant	5.052	.065	85.49***
Hours spent shopping by cellphone	.133	.032	4.19***	Hours spent shopping by cellphone	.135	.026	5.17***
Hours spent shopping by computer	−.016	.033	−.49ns	Hours spent shopping by computer	−.003	.031	−.09ns
Hours spent traditional shopping	.178	.033	5.40***	Hours spent traditional shopping	.145	.032	4.59***
Proportion of spending on cellphoneshopping	.003	.003	1.03ns	Social exclusion	−.178	.024	−7.42***
Proportion of spending on mall shopping [a]	−.001	.001	.83ns	Moderator	−.147	.019	−7.62***
Social exclusion	−.211	.024	−9.03***	Hours spent shopping by cellphone X Moderator	.039	.016	2.47*
Predictors of hours spent shopping by cellphone	R² = .214			Hours spent shopping by computer X Moderator	−.019	.−16	−1.19ns
				Hours spent traditional shopping X Moderator	−.0004	.017	−.02ns
Constant	1.929	.076	25.39***	Social exclusion X Moderator	.043	.012	3.62***
Social exclusion	.459	.030	15.13***	Predictors of hours spent shopping by cellphone	R² = .230		
Predictors of hours spent shopping by computer	R² = .070						
				Constant	−.075	.047	−1.61ns
Constant	3.700	.077	48.32***	Social exclusion	.404	.036	11.26***
Social exclusion	.241	.027	8.93***	Moderator	.032	.027	1.18 ns
Predictors of hours spent traditional shopping	R² = .066			Social exclusion X Moderator	.055	.−16	3.52***
				Predictors of hours spent shopping by computer	R² = .084		
Constant	3.854	.068	56.37***				
Social exclusion	.200	.027	7.34***	Constant	−.056	.045	−1.26ns
Predictors of proportion spending on cellphone shopping	R² = .169			Social exclusion	.190	.031	6.10***
				Moderator	.043	.025	1.69ns
Constant	.270	.688	.392ns	Social exclusion X Moderator	.041	.014	2.93**
Social exclusion	3.97	.268	14.80***	Predictors of hours spent traditional shopping	R² = .080		
Predictors of proportion spending on traditional shopping	R² = .094						
				Constant	−.062	.040	−1.55ns
Constant	56.27	1.521	37.00***	Social exclusion	.169	.032	5.30***
Social exclusion	−5.86	.422	−13.9***	Moderator	−.003	.022	−.143ns
				Social exclusion X Moderator	.045	.014	3.16**

Moderator (Refer to the respective column)	Financial distress b	SE	t	Area of residence, Urban (0) vs rural and small town (1) b	SE	t	Age b	SE	t
Predictors of happiness and well–being	R² = .386			R² = .129			R² = .151		
Constant	5.146	.027	193.0***	5.13	.031	164.21***	5.078	.037	138.9***
Hours spent shopping by cellphone	.120	.026	4.61***	.138	.030	4.61***	.136	.032	4.31***
Hours spent shopping by computer	.001	.026	.02ns	−.005	.030	−.164ns	−.002	.032	−.07ns
Hours spent traditional shopping	.113	.027	4.14***	.168	.033	5.06***	.145	.035	4.15***
Social exclusion	−.135	.020	−6.73***	−.213	.024	−9.01***	−.240	.025	−9.65***
Moderator	−.378	.018	−20.6***	−.031	.066	−.48ns	.0003	.026	.01ns
Hours spent shopping by cellphone X Moderator	−.015	.016	−.90ns	−.053	.063	−.84ns	.193	.020	.95ns
Hours spent shopping by computer X Moderator	−.033	.016	−.21ns	−.102	.059	−1.73ns	−.021	.020	−1.01ns
Hours spent traditional shopping X Moderator	−.022	.016	−1.37ns	−.004	−.056	−.06ns	−.004	.023	−.17ns
Social exclusion X Moderator	−.019	.−13	1.47ns	−.107	.049	−2.19*	−.091	.016	−5.56***
Predictors of hours spent shopping by cellphone	R² = .243			R² = .223			R² = .324		
Constant	.030	.040	.75ns	−.003	.040	−.076ns	−.070	.041	−1.71ns
Social exclusion	.470	.029	16.06***	.452	.030	14.94***	.327	.031	10.60***
Moderator	.118	.024	4.81***	−.280	.087	−3.22***	−.364	.028	−12.92***
Social exclusion X Moderator	−.082	.020	−4.18***	−.117	.063	−1.87ns	−.103	.020	−5.11***
Predictors of hours spent shopping by computer	R² = .081			R² = .075			R² = .111		
Constant	.015	.040	.38ns	−.003	.040	−.075ns	−.034	.042	−.80ns
Social exclusion	.248	.027	9.27***	.236	.027	8.77***	.170	.028	6.07***
Moderator	.073	.026	2.80**	−.100	.085	−1.18ns	−.207	.029	−7.06***
Social exclusion X Moderator	−.042	.018	−2.39*	−.114	.056	−2.06*	−.050	.019	−2.62**
Predictors of hours spent traditional shopping	R² = .100			R² = .074			R² = .117		
Constant	.021	.035	.60ns	−.002	.035	−.04ns	−.069	.036	−1.91ns
Social exclusion	.212	.027	8.01***	.196	.027	7.19***	.124	.027	4.57***
Moderator	.119	.022	5.28***	−.225	.075	−2.99**	−.133	.026	−5.22***
Social exclusion X Moderator	−.057	.018	−3.19**	−.058	.056	−1.03ns	−.102	.−18	−5.58***

ns = non-significant.

[a] As spending figures are proportions totaling 1, only two of the three proportions can be included in a single model. Including spending on computer in place of traditional shopping as predictor of happiness and well-being: b = .001, SE = .001, t = .826 ns; and social exclusion as predictor of proportion spending on traditional shopping: b = 1.887, SE = .417, t = 4.53. In line with Hayes PROCESS procedures, coefficients are centered but not standardized.

* p < .05.
** p < .01.
*** p < .001.

technologies, which have become part of consumers' persona, as people use them 24/7. This continuous interaction with cellphones probably leads consumers to spend more time and money via their cellphones. In contrast, this interaction may not be possible using a computer, which is harder to use remotely than a cellphone with retailing apps. The extent to which the popularity of cellphone shopping is due to the design of the interface, compared with the advantages of portability and/or psychological connection, remains to be explored.

This work also reveals aspects of social exclusion and the negative effects on happiness and well-being. Specifically, for disabled respondents,

cellphones are the primary device for "experiencing" shopping. Exclusion has a negative effect on happiness and well-being, which is worse for disabled shoppers, but cellphone shopping can overcome the negative effect. However, the result was the opposite for online shopping via computer and traditional shopping. The results demonstrate the role of the cellphone, especially for disabled shoppers, who may particularly enjoy their use, because cellphones are not bulky or heavy. The study contributes to current literature by stressing the critical importance of the cellphone for a specific aspect of social exclusion, namely, disability issues.
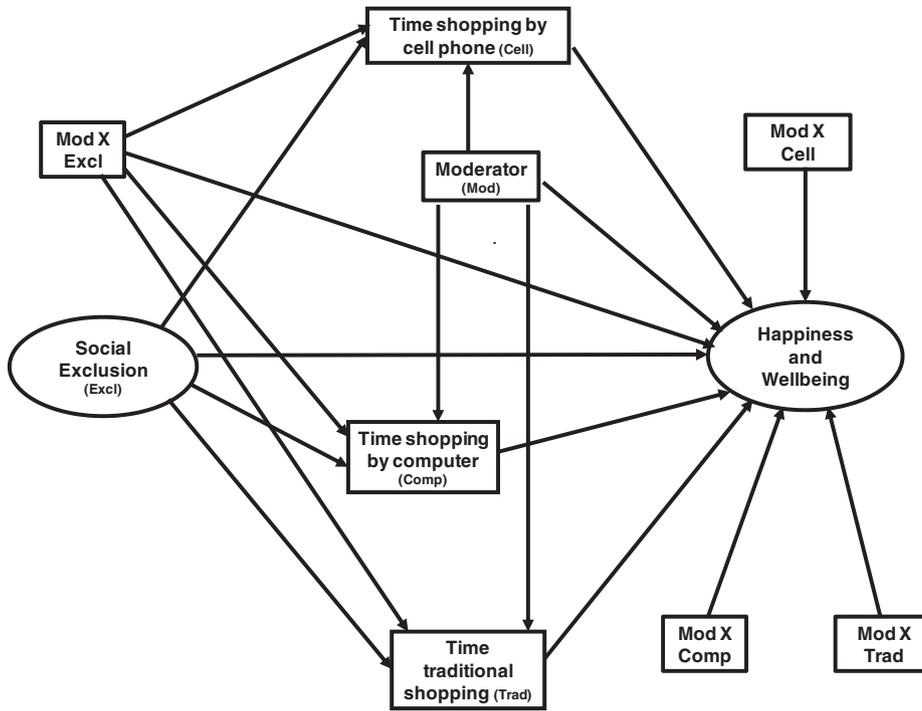
Fig. 2. Operationalized model. Note: Non-significant variables dropped.

Yet cellphone shopping does not ameliorate the negative effects on happiness and well-being for those suffering financial distress in comparison with those who do not experience financial distress; those suffering exclusion due to financial distress shop less by cellphone (and also less by computer and store shopping) than those not suffering financial distress. This finding is understandable, because shopping by cellphone entails financial costs, but nonetheless, the cellphone is a popular channel for accessing the Internet even for low income groups (Duggan & Smith, 2013). Those who suffer financial distress and shop by cellphone gain a similar amount of happiness and well-being from doing so as those who do not suffer financial distress. Similarly, those socially excluded consumers in older age groups or rural residents
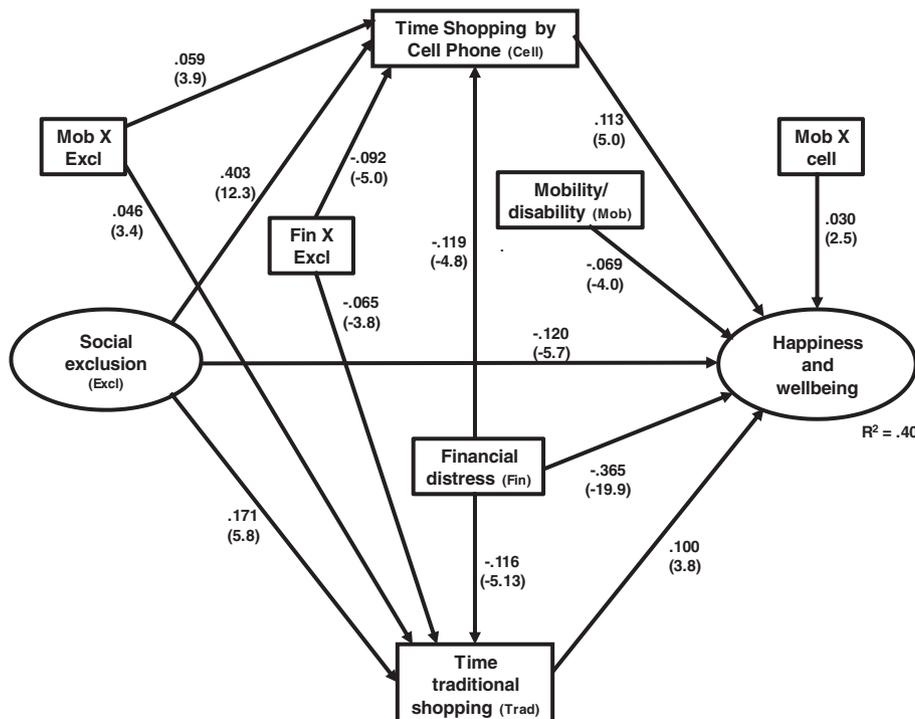

Fig. 3. Final model. Notes: Paths report centered regression b-coefficients (t-values). Variables without significant effects on happiness and well-being dropped. Non-significant paths omitted for clarity.

gain no extra benefit from shopping by cellphone. Those suffering exclusion in the older age group shop less by cellphone (and also less by computer and traditional shopping) than those who are younger. Social exclusion has a greater negative effect on happiness and well-being for those who are older rather than younger and those who are rural rather than urban dwellers. The limited positive effects of shopping by cellphone for consumers socially excluded by age and rural residence may reflect the relative resistance of those groups to the adoption of new technology (Dabholkar & Bagozzi, 2002; Duggan & Smith, 2013), compounded perhaps by mobile signal coverage problems for rural users. Nonetheless, older or rural residents who do shop by cellphone gain a similar amount of happiness and well-being from doing so as those who are younger or urban residents.

Finally, socially excluded people may be primarily multichannel shoppers, because due to their constraints, they exploit every channel available. This finding is unique and fills a relevant research gap. The cellphone is a key interface for bringing them together and contributing to happiness and well-being. This tendency toward multichannel shopping is stronger for disabled respondents but weaker for people who are socially excluded by financial distress and age (little effect of rural residence). Younger respondents may be searching for the best deals and, along with those who are less financially distressed, for fashionable or technologically advanced products. These respondents also may be following a multichannel approach of finding and evaluating products they want in the store, checking online for the best prices, and finally ordering the products online or returning to the store. Considering the effort required, young and less financially stressed consumers will be well-placed to multichannel shop in this manner.

6. Conclusions, implications, and future research

This article examines three channels and identifies factors in the role of social exclusion in relation to shopping and well-being. A major contribution is that cellphones are important for socially excluded people. Cellphones support their shopping activities and improve their happiness and well-being. The findings define relevant factors for selected groups of socially excluded shoppers in terms of disability, financial distress, age, and area of residence. Overall, the results suggest that socially excluded people tend to be multichannel shoppers too, representing another key finding. The outcomes will benefit managers and policy makers. Specifically, marketing managers need to recognize the increasing role of multichannel, particularly mobile retailing and the need to invest in relevant infrastructure. In addition, this study reveals a new market segment, socially excluded shoppers, in particular disabled ones, who spend a significant amount of time shopping using all three channels and spend a higher proportion of their shopping expenditures via online shopping. This segment requires urgent attention and tailor-made marketing strategies. These findings should attract major interest from omnichannel managers, who anticipate that consumers will switch and use channels interchangeably. Specific managerial implications emerge for various market segments. For example, disabled respondents tend to use cellphone shopping extensively, providing them with numerous benefits; hence, marketing managers should target this segment using cell-based strategies. Policy makers can also target this segment by employing appropriate mobile-based communications. Policy makers could use these strategies to reach younger consumers, who use cellphones extensively.

This work has limitations that define its boundaries. Specifically, the focus is on just four representative factors in relation to social exclusion, incorporating only three channels. Further research could split consumers older than 60 years into subgroups, because different ages within this group may exhibit great diversity in online behavior, skills, and expertise. Future work could incorporate extra factors, more specific to the channels. For example, Internet broadband connectivity could be appropriate when analyzing online channels, and the availability of public transport could be appropriate for accessibility to traditional shopping. Studies also can examine other channels and devices, especially tablets, which have become popular for shopping, and more traditional channels that disabled people utilize, such as catalog, telephone, and shopping in-home with a representative. Finally, further research could shed light on whether omnichannel can become the next stage for socially excluded people, a segment that this study finds to be avid multichannel shoppers.

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