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Heterogeneous preferences with respect to food preparation time: Foodies and quickies

Leonardo Casini[a], Fabio Boncinelli[a,*], Caterina Contini[a], Francesca Gerini[a], Gabriele Scozzafava[a], Frode Alfnes[b]

[a] Dipartimento di Gestione dei Sistemi Agrari, Alimentari e Forestali, University of Florence, Italy
[b] School of Economics and Business, Norwegian University of Life Sciences, Norway

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ABSTRACT

Time scarcity is an important driver for food choices. Despite this, little research has been conducted on the preferences of consumers and their willingness to pay for reduced food preparation times. We have explored consumer preferences with respect to saving time in cooking, using a payment card technique with an online survey on a sample of German (486 in number) and Italian (494) consumers. Our findings differ from those of other studies on the same context of daily duties, such as commuting, which note a general willingness to pay for time-saving. Indeed, latent class analysis shows three segments: the 'quickies', who are willing to pay a premium for saving time; the 'foodies', who receive utility in cooking; and the 'indifferent', for whom the time needed to prepare meals is not a choice factor. Profiling within our sample indicates that Italians, young people, and large families show a higher willingness to pay for saving time in cooking. Consumer heterogeneity calls on convenience food producers for targeted marketing strategies to create value, from product development to communication and distribution.

1. Introduction

Time affects most aspects of our lives and has been operationalized in various ways by researchers in different fields (Jacoby, Szybillo, & Berning, 1976). In his theory of 'human capital', Becker (1965) includes time as a resource existing in a limited and finite quantity that can be allocated to activities that generate satisfaction, or traded for other resources such as money. In the labour market, people can sell their time for money, while in the goods market, people can be viewed as buyers of free time when they purchase time-saving products or services (Sheely, 2008). The activities that generate satisfaction are likely to differ among individuals and across contexts; some may be willing to pay to do something that others would pay to avoid. Food preparation is likely one such activity, as food preparation can be a duty or a leisure activity. In the post-modern society, time is becoming more and more scarce, due to changes in cultural, economic, and socio-demographic factors (Gross & Sheth, 1989; Zuzanek, Beckers, & Peters, 1998). This evidence determines the growing demand for goods and services that enable saving time in unsatisfactory tasks in favour of more enjoyable activities.

Concerning food consumption, Davis (2014) shows that time spent on food production at home decreases when the opportunity cost of time rises. The majority of studies affirms that the increased participation of women in the workforce is one of the central determinants of time's increased opportunity cost and hence contributes to the need for food products with reduced preparation time (Buckley, Cowan, & McCarthy, 2007a; Davis, 2014; Möser, 2010; Traill, 1997). Other determinants are identified in changes in lifestyles, such as the deconstruction of family meals and the growing importance of leisure activities (Brunner, Van der Horst, & Siegrist, 2010; Buckley, Cowan, & McCarthy, 2007b; de Boer, McCarthy, Cowan, & Ryan, 2004). All these factors result in the increased consumption of convenience foods (Hamermesh, 2007; Jabs & Devine, 2006; Park & Capps, 1997; Sheely, 2008).

Convenience foods are defined as cooked or partially processed foods that offer consumers a set of services aimed at facilitating food-

* Corresponding author at: Dipartimento di Gestione dei Sistemi Agrari, Alimentari e Forestali, University of Florence, Piazzale delle Cascine, 18, 50144 Florence, Italy.
E-mail address: fabio.boncinelli@unifi.it (F. Boncinelli).

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related activities, including purchasing, cooking and cleaning up (Brunner et al., 2010)[1]. These services range from saving time, to avoiding unpleasant activities, and reducing effort. Saving time in cooking is the main advantage that convenience foods provide (Jabs & Devine, 2006). This advantage can have different degrees of relevance, varying from foods that are only cut and washed to ready-to-eat foods.

Over the last decades, many consumers have been transformed from consumers that produce, i.e. prosumers (Toffler, 1980; Troye, Supphellen, & Jakubanecs, 2012), into convenient consumers (Olsen, Prebensen, & Larsen, 2009), as convenience foods have replaced homemade foods in many households. In this framework, convenience has become an important food choice attribute (Berry, Seiders, & Grewal, 2002; Davis & Serrano, 2016; Grunert, 2006; Lusk & Briggeman, 2009).

Several studies have analysed the convenience foods market, identifying large segments with a high propensity for consuming convenience foods (Buckley, Cowan, McCarthy, & O'Sullivan, 2005; Casini, Contini, Marone, & Romano, 2013; Daniels, Glorieux, Minnen, van Tienoven, & Weenas, 2015; Olsen et al., 2009). These studies have utilised various segmentation factors of the convenience orientation. A rich vein of research has concerned segmentation with respect to lifestyle, as for example in food shopping and preparation (Buckley et al., 2007b; Olsen et al., 2009), time spent in food-related activities (Daniels et al., 2015) or consumer eating and purchasing habits (Bernués, Ripoll, & Panea, 2012; Shiu, Dawson, & Marshall, 2004). The results show that convenience-oriented consumers dislike food shopping, display less enjoyment in meal preparation, have fewer cooking skills, are accustomed to eating alone, and breaking down meals.

As far as socio-demographic characteristics are concerned, it has emerged that the consumers with a more pronounced convenience orientation are young people (Bernués et al., 2012; Brunner et al., 2010), single males (Olsen et al., 2009), people with a higher level of education (Daniels et al., 2015), and couples among whom the meal-preparer works outside the home (Candel, 2001; Chetthamrongchai & Davies, 2000). Furthermore, according to Shiu et al. (2004), the effect of children on the propensity to consume convenience foods depends on the family context. In families with two adults, having children is negatively associated with a convenience orientation, while in single-parent households, having children gives a higher propensity to consume convenience foods.

Moreover, Swoboda and Morschett (2001) show that convenience-oriented consumers are low price-sensitive. However, none of the studies cited here have estimated the willingness to pay (WTP) for the convenience attribute. In particular, as far as we know, no studies have investigated the time-saving dimension of convenience foods, or segmented consumers based on their food preparation time preferences.

The objective of this paper is to understand the preferences of consumers with respect to food preparation time and to estimate their WTP for saving time in cooking. To investigate this issue, we conducted an online survey in which respondents were asked to evaluate otherwise identical food products with different preparation times. We used latent class regression modelling to explore the degree to which food preparation time preferences are heterogeneous. Finally, the identified segments were profiled according to the main socio-demographic features.

2. Review of the literature on the value of time

Two time issues are important for food researchers. One refers to the value people place on their time, which has received very little attention in the food literature. The second issue concerns intertemporal choices and the effect of individual discount rates on healthy or environmentally-friendly food behaviours (De Marchi, Caputo, Nayga, & Banterle, 2016; Lawless, Drichoutis, & Nayga, 2013). In this article, we focus on the former issue.

The famous saying 'time is money' refers to the fact that time is a limited and finite resource that can be exchanged for money (Becker, 1965). According to economic theory, rational individuals should allocate their time between work and leisure so that their marginal value of leisure time is equal to their wage rate.

DeSerpa (1971) developed a theory of the economics of time, pointing out that the individual time endowment is the sum of time spent at work and time spent in other daily activities. Some of these activities are necessary/unavoidable for consuming (i.e. meals preparation) or producing (i.e. transportation to and from work). Therefore, time required for these activities is an additional technical constraint in the problem of utility maximization. In this sense, the value of time-saving is the consumer's extra utility to relax this constraint. In this framework, food preparation is a necessary activity for consuming food at home, and the time spent on it affects the consumer's utility. Therefore, preparation time should be part of the utility optimization when consumers choose food products.

Studies on the value of time have primarily been conducted in transportation, where WTP for time-saving is relevant when evaluating infrastructure projects and policies (e.g., Brownstone, Ghosh, Golob, Kazimi, & Van Amelsfort, 2003; Brownstone and Small, 2005). Reviewing the research on this topic, Small (2012) notes a general WTP for reducing travel time. However, several empirical studies find differences in the value placed on time-saving for transportation based on travel purpose (Abrantes & Wardman, 2011; Ho, Mulley, Shiftan, & Hensher, 2016; Mackie, Jara-Díaz, & Fowkes, 2001; Shires & de Jong, 2009). In particular, those who travel to visit friends, engage in hobbies, shopping, or going on holiday place a lower value on saving time compared with when they travel to commute or for business (Mackie et al., 2001; Steimetz & Browstone, 2005). Paleti, Vovsha, Givon, and Birotker (2015) stress that differences in WTP to save travel time depend on whether the activities are mandatory. In general, if a given activity is mandatory, WTP to save time is much greater. For example, consumers show a considerable WTP to save time with mandatory shopping but not when the shopping is not mandatory (Paleti et al., 2015). Many people can see meal preparation as a mandatory daily routine, resulting in a WTP to save food preparation time, while others do not.

Results from transportation studies highlight an overall WTP for time-saving, but they also point out variability in time valuation that may be extended to food preparation. Travel time may be associated with something negative when driving to work, and something positive when out for a leisurely ride. Furthermore, some people enjoy driving while others just want to get to their destination. Similarities can be expected in the food setting; some people enjoy cooking, while others only want to get to their destination, namely the prepared meal. Therefore, studies identifying consumer preference heterogeneity are necessary to improve our understanding of food preparation time value.

3. Data and methods

We conducted an online survey in Italy and Germany in September 2015. The survey was carried out by an international marketing research company (Toluna USA Inc.)[2] using their online panels. Online

[1] Based on this definition, Brunner et al. (2010) identify various convenience foods covering the full range of products sold in the supermarkets and classify them into four groups: highly processed, moderately processed, single components, salads (green salad, fruit salad, and other ready salad, e.g. celery, potatoes, beans, seafood, pasta).

[2] Toluna USA Inc. disposes of an international panel that includes 222,000 Italians and 549,500 Germans. The panel is distributed over the entire national territory (Italy: 43% Northern, 19% Central and 38% Southern and Islands; Germany: Eastern 27%, Central 13%, Northern 16%, Southern 21%, Western 23%).