

Affect a firms strategy economics essay

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Under duopoly, we show that advertising can under some circumstances cause asymmetric equilibria that will increase equilibrium prices compared to a no advertising outcome. The effects of cooling-off periods depend on the fraction of initially motivated consumers in the market. We show that whenever the fraction of motivated consumers in the population is sufficiently low, such policies decrease both overall and consumer welfare.

This is because prices in such a case will be such that all consumers will buy a product and receive on average a positive consumption utility.

Footnote: Fitting to this example, in order to promote its Internet league pass for the 2008 American Football season, the nfl.com website posted a \$10 minute long teaser of the 2007 season final on its website. (Lor03) were the first to explicitly define the notion of projection bias and also give the formal basis for our model. Their concept focuses on a bias that consumers experience when predicting their utility of consuming a good in a different state in the future. This projection bias occurs because people are said to rely partly on their current state of mind when making a prediction about a future state. In the future. Since their predicted utility differs from the expected utility of a rational consumer, this can lead to non-optimal behavior. As well as to time inconsistencies. As a formal illustration of the projection bias, (Lor03) present a model in which consumers decide whether or not to buy a durable good. Footnote: In addition, Loewenstein et al. (2003) also present a model of habit formation where the projection bias leads to a permanent over-consumption. Consumers exhibit day-to-day fluctuations with respect to the valuation of a good they can consume in several periods. When in a state with a relatively high valuation, a consumer overpredicts his possible consumption utility. Consequently, the consumer

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would buy the good even for a price so high as to have a negative expected utility without a bias. At the same time, when being in a state with a low valuation, he would not want to buy the good for a price that would give him a positive expected consumption utility when making rational predictions about the future. cite{conlin2007pbc} use a structural model in order to estimate the magnitude of a potential projection bias with respect to weather changes when consumers make catalogue orders for clothing. They find a significant projection bias when consumers are predicting their future tastes in this case. The work on emotion and cognition in the branch of the cognitive psychology literature can give further intuitions for the existence of a projection bias. %footnote{The literature on emotion and cognition provides several concepts that try to bring these two fields together, see cite{eysenck95}, pp. 435-448, for an introduction.}In our context, the concepts of mood-state dependent retrieval and mood congruity are of particular interest.%These concepts are built on the semantic network theory introduced by cite{bower1981mam}. Mood congruity ``describes the case when people in a good mood remember emotionally positive material better than those in a bad mood, whereas the opposite is true for emotionally negative material"(citealt{eysenck95}, p. 443.). If a person finds herself in a happy mood, for example, under mood congruity she is thus said to remember emotionally positive characteristics better than negative ones. %speichern``Memory is said to be mood-state dependent in case the memories that subjects store when they are in one emotional state are more retrievable later if they re-enter that same emotional state; and their recall is worse if they attempt recall in a different emotional state from original learning"(citealt{bower92}, p. 22). cite{braun1999pae} analyzes the effects <https://assignbuster.com/affect-a-firms-strategy-economics-essay/>

of post-experience advertising on consumer memory. In two experiments, participants were given samples of orange juice. After a short distraction period, some participants were shown an advertising spot for a fictitious orange juice brand, while a control group did not watch this spot. Afterwards, people were asked to evaluate the consumption. DESCRIBE THE EXPERIMENTS) She finds that post-experience advertising can make memories about a product experience more appealing. Also negative experiences are perceived more favorably. While the first experiment showed these effects by letting the participants evaluate immediately after the consumption, the second experiment obtained similar results when letting participants evaluate one week after the consumption. If such post-advertising measures are effective, this could be an explanation for why firms do not avoid exploiting consumers by creating biased wants through advertising, because this does not necessarily damage a firm's reputation in the long run. contrary to Nelson's proposal. There is a large and diverse literature on the different effects of advertising, see cite{bagwell07} for a broad overview of the advertising literature. As Bagwell points out, empirical evidence suggests that no theoretical approach seems to work in all cases. In cite{bloch99}, consumers' tastes are non-uniformly differentiated on a line and firms are located at the ends of the line. Bloch and Manceau explore cases where either both firms are owned by a multi-product monopolist or by competing firms. At most one firm is allowed to advertise in their model. If a firm advertises, this causes a shift in the distribution of consumers' tastes; these then move closer to the advertising firm. Technically, this means that if the firm located at the right end of the line advertises, the distribution of consumer tastes will change from the distribution function $F(x)$ to the

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exogenously given distribution function $G(x)$, where $G(x)$ stochastically dominates $F(x)$. For the class of log-concave distributions, Bloch and Manceau show that a multi-product monopolist has an incentive to advertise the more favored product to generate an even more biased distribution.

[cite{bernheim2004aac}](#) provide a model in which agents face stochastically varying environmental impulses over time that influence the propensity to consume an addictive substance. In a "cold" mode, agents choose according to their true preferences, while in a "hot" mode, their brain processes suffer from a distorted forecast mechanism. In a dynamic programming framework, such a distortion can lead to a consumption of the addictive substance which in turn increases the probability of being in a hot mode in the future. This chapter also relates to a small literature of marketing models with a behavioral economics foundation.

[cite{ho2006mpc}](#) discuss how several behavioral economics concepts, such as reference dependence and hyperbolic discounting, can be implemented in a marketing context. Section 4.2 presents the baseline model. The monopoly and oligopoly outcomes are analyzed in section 4.3 and 4.4, respectively. In section 4.5, we present welfare evaluations, and analyze a mandatory cooling-off periods in section 4.6. Section 4.7 concludes. If consumers indeed suffer from such a bias, the question remains whether this behavior can also be rationalized by some kind of optimal decisionmaking by the consumer that is not accounted for in our model. One such example would arise if questioning their biases and computing their true future predicted consumption utility was costly for the consumers. If these costs on average exceed the costs of "impulsively" making a wrong purchase decision, then this behavior is on average optimal for the

consumer. Another rationalization would be consumers deriving an intrinsic utility from making impulse purchases that are so strong that they dominate the disutility from overpaying for the product. There are several channels through which consumer misperceptions can be modeled.

cite{inderst2009sales} model a relationship between a financial advisor and a private investor in which granting a cancellation right to consumers can increase a seller's credibility in a cheap talk game. In contrast to our model, naive consumers in their model always believe every advice the seller gives them, leading the seller always claiming that a product is the most suitable for a consumer. Thus, a consumer's key concern in their model is the suitability of a product to the individual taste, which amounts to horizontal product differentiation rather than vertical product differentiation as in our model. From a policy perspective, their recommendations are essentially opposite to ours: Cancellation rights will offset some bad advice from sellers. Another way of viewing our model would be that the naive consumers do not see some hidden warranty return costs, such as a consumer's shipping costs if she wants to return the product. These shrouded costs would lead to an overestimation of a warranty, which would then cause a misperception of product qualities. This kind of consumer myopia would be similar to cite{laibson06}. There are however several aspects that differ from this model. First, we believe that the psychological costs of dealing with a warranty reimbursement is very difficult to be unshrouded in a cite{laibson06} fashion. Such costs are very hard to be quantified, and rival warranty suppliers will hardly be able to unshroud such costs.

footnote{According to cite{OFT2012}, one of the major problems in the extended warranty business is that retailers have a near-monopoly status at <https://assignbuster.com/affect-a-firms-strategy-economics-essay/>

the point of sale. In such a case, firms have even less incentive to unshrouding warranty costs.} Second, in our model, a warranty cannot be simply seen as a substitutable add-on. This is because of the signaling role of a warranty with respect to product quality. Self-control costs due to hyperbolic discounting could be seen as one of the explanations for return costs. However, a purely hyperbolic model would have to imply naivete about self-control costs in each period in order to be able to predict a behavior of never returning a product. In any other case, there would be a last period in which returning the product to claim a warranty would be optimal. cite{drago2006} overcome this problem in a mail-in-rebate setting by furthermore introducing a sunk-costs regret effect. This chapter formalizes an economic model that captures several traits with respect to consumers' return behaviors, choices of extended warranties, and quality misperceptions. The presented evidence suggests that return costs play a significant role in the consumers' complaint behavior.%In this paper we have explored a specific form of consumer quality misperceptions which is caused by naive consumers underestimating their return costs of claiming a warranty payment. Competition always decreases prices for the goods in the market. However, this does not crowd low quality goods out of the market, and naive consumers often not buy their most suitable product. Note that the implications of our model are in line with some specific formalized psychological biases. One example is the concept of projection bias, which was introduced by cite{lor03}. Projection bias describes situations in which people fail to fully project their future taste changes relative to their current taste. We show that in a differentiated oligopoly, consumer policy interventions can hurt overall consumer welfare because of restricting

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consumers with a low preference for quality to purchase high quality goods. This illustrates one problem decision-makers face when using behavioral models such as ours for policy purposes. Even though consumer protection policies may prevent some consumers from making mistakes, it can have adverse effects on other people because of restricting their choices. Therefore, any such policy should be implemented with caution, and only after weighting its advantages and disadvantages. There are some important open questions that we have not addressed in this chapter. Firstly, it is of importance to understand to what extent consumers learn from previous bad experiences. cite{agarwal2008learning} study how consumers' behavior changes after having to pay overlimit or cash advance fees in a certain month. They find that shortly after such an incident, consumers avoid paying fees by changing their behavior, but that in later months, they fall back into old manners and eventually pay higher fees again.%!!!!!!!!!!!!!!!!!!!!!! Secondly, from a policy standpoint, we would like to know how important non-financial cost such as emotional cost are compared to financial costs. Recent work in economics and psychology has focused on how psychological biases affect contract design, with a particular focus on the pricing of goods. In many instances contractual complexity and other non-price features can also be reasons for consumer confusion. A warranty applicable in case of a product breakdown is such a feature that is included in many contracts. Next to the insurance effect, warranties often serve as a signal for product quality. footnote{cite{erdem2010simple} and cite{choi2010consumer} empirically analyze the main reasons consumers purchase warranties. Both find a dominating effect of consumer quality signaling over other reasons, i. e. risk aversion and price-prediction, respectively.}

Warranty practices have recently come under scrutiny from policy makers. The British Office of Fair Trading (OFT) concluded in its 2002 market investigation that "The similar behaviour of electrical retailers limits consumers' ability to make accurate assessments of the value of buying extended warranties" and that "Consumer protection in this market is inadequate" (citealt{oft2002extended}). Subsequently, British legislature added protection policies such as mandatory information to consumers that extended warranties are optional, as well as a 45 day cancellation period. In 2011, the OFT concluded that these measures were not reducing consumer confusion, and that that common practices were "unfair and uncompetitive." %footnote{OFT (2011).} Further evidence suggests that extended warranties are among the main profit drivers for retailers in the consumer electronics industry. footnote{See also "The warranty windfall" in Business Week, December 20, 2004. An extended warranty can also be seen as an add-on good. Since the price of the warranty is observable, this is however not be consistent with a "shrouded attribute", as for example in cite{laibson06}.}%item Consumer quality misperceptions%Another common feature in markets is that consumers use warranties as a way to infer product qualities.%item Mail-in Rebates%There is also evidence that consumers often buy goods including the option of a mail-in rebate discount, without claiming into mail-in rebates purchases, without handing in the mail-in rebates. The market for redeemable rebates shares some patterns with the warranty market. There is evidence that firms using redeemable rebates as a promotional tool also because many consumers will not exercise them and end up paying the full price, see for example cite{jolson1987correlates}. footnote{cite{dhar1996price} conduct field experiments in order to compare

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how consumers react to both redeemable coupons and off-the-shelf price discounts. They find that coupons lead to both a higher increase in the number of sales and higher profits compared to the price discounts, for only an average of 55% of the consumers redeem the coupons. In fact, some consumers under-predict their return cost when having to return a product to claim a warranty. The consumer bias is modeled as a systematic underestimation of the return costs consumers incur when claiming a warranty. There is empirical, experimental, and anecdotal evidence that such a bias exists in many markets. Evidence from both psychology and marketing suggesting that a large fraction of consumers does not complain to producers after having experienced a product failure. The [Tarp 1996](#) study for example shows that conditional on having a service failure, more than 70% of the customers do not report it. [Chebat et al. \(2005\)](#) argue that passive emotions such as resignation and avoidance are a strong factor for this kind of behavior. [Huppertz 2007](#) finds a positive relationship between the leniency of the refund system and the number of consumer complaints. This suggests that firms can influence consumer response behavior via the complexity of their refund system. We also show cases in which policy interventions that are only based on the existence of naive consumers can further hurt consumer welfare. From a consumer policy perspective, the literature reviews of [Armstrong 2008](#) and especially [Vickers 2004](#) give a useful summary of the current literature. Vickers also explores whether reputation can overcome a firm's commitment problem of providing a high quality to consumers. As a necessary condition, he finds that firms in such an equilibrium have to make positive profits, however full efficiency in terms of

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the optimal price-quality bundle can still not be achieved. Our model relates to two different branches in economics, the literature on warranties in industrial organization and contract theory, as well as the exploitative contracting literature in the field of behavioral economics.

Spence (1977) first formalizes a signaling role of warranties. In his model, the firm side is perfectly competitive, and consumers vary in their degree of risk-aversion. The marginal costs of consumption are increasing and convex in the probability of the good working without a defect, which he shows to be sufficient for warranties to be a potential signal for product quality in terms of a good's reliability. *Emons (1988)* focuses on the double moral hazard problem that arises from warranties, i. e. the trade-off between a firm's moral hazard of producing a low quality good when only offering a low warranty and a consumer moral hazard that arises because consumers do not use a good carefully when having a high warranty.

Galor (1989) develops a duopoly model in which warranties reflect the time span in which a consumer may exchange a malfunctioning product. In her model, product qualities are exogenous, and only firms observe each others' product qualities. *Mann (1990)* assess the effectiveness of money-back and replacement warranties both when the product quality is observable and when it is not. They find that a money-back warranty is always better except for an intermediate range of replacement costs of the firm. *Lutz (1998)* develop a model in which independent non-manufacturing firms can enter the market to sell extended warranties in the presence of a manufacturing monopoly. They find an ambiguous effect on the profits of the manufacturer. There is a growing literature of Industrial Organization models with a Behavioral Economics foundation, see <https://assignbuster.com/affect-a-firms-strategy-economics-essay/>

cite{ellison: bri} and cite{dellavigna2009psychology} for broad literature reviews. cite{dm04} focus on how firms can design contracts in order to maximize their revenue when facing consumers with hyperbolic preferences. %cite{laibson06} give a bounded rationality explanation for why firms shroud prices of add-on costs in equilibrium. They develop a competitive model in which the purchase of a base good implicates add-on costs later on. %If consumers are aware of these add-on costs in advance, they can either buy them from the same firm from which they buy the base good, or they can costly substitute away from the good. %There are 2 types of consumers in the market. Sophisticated consumers foresee the add-on costs even without advertising and substitute away from them if they exceed the costs of a private substitution; in contrast, myopes are unaware of these costs if information on add-on prices is shrouded. %If firms advertise their add-on costs, this then informs myopes, and they are then also able to costly substitute away from the good in advance.%are then at most willing to pay a price equal the substitution costs for the firm's add-on good.%Gabaix and Laibson show that if the fraction of myopes in the market is sufficiently high, shrouding can persist in equilibrium, because in such a case each firm benefits more from fully exploiting the myopes' naiveté than from cutting its add-on price as to attract both types of consumers to buy the add-on good. Therefore, myopic consumers in the market can under some circumstances exert a negative externality on sophisticated consumers.

cite{armstrong2009inattentive} develop a model in which some consumers do not pay attention to the quality component of products when making their purchasing decision under firm competition. In a symmetric mixed strategy equilibrium, the existence of inattentive consumers is responsible for

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positive firm profits. cite{drago2006} explain empirical evidence for people not sending back mail-in rebates offered in combination with the purchase of certain goods. They provide a model in which consumers have both hyperbolic preferences and suffer from a so-called "sunk-cost" effect. They show that a relatively short rebate period increases the number of people who complete the rebate, while a longer duration of the rebate period increases the number of consumers who purchase a good but decreases the number of consumers who complete the rebate. reason for why many people do not rebate: procrastination and sunk-costs effect (discuss the introduction of this effect) cite{laibson06} present another possibility how consumer naiveté can affect firms' advertising decisions.

cite{inderst2009sales} explore the provision of consumer cancellation rights in case sellers act as advisors with respect to the suitability of a product for a consumer. They distinguish between a case in which all consumers anticipate the seller's profit-maximizing intentions and a case in which all consumers always believe the seller's claims. Section 2 will give an overview of the related literature of both warranty models and behavioral models. The remainder of this chapter is structured as follows. Section 3. 2 presents the setup of our model. The analysis of the monopoly and oligopoly settings is provided in Section 3. 3 and 3. 4, respectively. Section 3. 5 develops extensions of the baseline model such as rebates and consumer protection policies. Section 3. 6 concludes with a discussion of the results.