

PEOPLE AND PRODUCTS

CONSUMER BEHAVIOR AND PRODUCT DESIGN

ALLAN J. KIMMEL



PEOPLE AND PRODUCTS

Consumer behavior and product design

Allan J. Kimmel



First published 2015 by Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge 711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2015 Allan J. Kimmel

The right of Allan J. Kimmel to be identified as author of this work has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Every effort has been made to contact copyright holders for their permission to reprint material in this book. The publishers would be grateful to hear from any copyright holder who is not here acknowledged and will undertake to rectify any errors or omissions in future editions of this book.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloging in Publication Data A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

Kimmel, Allan J.

People and products: consumer behavior and product design/Allan J.

Kimmel.—First Edition.

pages cm Includes bibliographical references and index. 1. Consumer behavior. 2. New products. I. Title. HF5415.32.K56 2015 658.8'342—dc23 2014034747

ISBN: 978-1-138-81224-6 (hbk) ISBN: 978-1-138-81225-3 (pbk) ISBN: 978-1-315-74891-7 (ebk)

Typeset in Bembo Std by Swales & Willis Ltd, Exeter, Devon, UK Printed and bound in Great Britain by Ashford Colour Press Ltd



PEOPLE AND PRODUCTS

By examining the interface between consumer behavior and new product development, *People and Products: Consumer Behavior and Product Design* demonstrates the ways in which consumers contribute to product design, enhance product utility, and determine brand identity.

With increased connectedness and advances in technology, consumers and marketers are more closely connected than ever before. Yet consumer behavior texts often overlook the application of the subject to product design, testing, and success. This is the first book to explore this interface in detail, exploring such issues as:

- the attributes and qualities that consumers demand from products and services, and social and cultural forces to be aware of;
- design and form and how they facilitate product usage;
- technological developments and the ways they have changed how consumers interact with products;
- product disposal and sustainability;
- emerging and future trends in consumer behavior and product development and design.

This exciting volume is relevant to anyone interested in marketing, consumer behavior, product development, technology, engineering, design, and brand management.

Allan J. Kimmel is Professor of Marketing at ESCP Europe in Paris, France. He holds MA and PhD degrees in social psychology from Temple University, USA. He has published extensively in the fields of consumer behavior and marketing, including articles in the Journal of Consumer Psychology, Psychology & Marketing, Business Horizons, Journal of Marketing Communications, and European Advances in Consumer Research.

Kimmel introduces a key strategic alliance for the 21st century: consumer research plus product design. He builds a convincing case for this partnership through a delightful mix of intriguing examples, broad scholarship, and engaging insights.

Russell Belk, York University Distinguished Research Professor and Kraft Foods Canada Chair in Marketing

At last, a book that lives up to its promised title, *People and Products: Consumer Behavior and Product Design*, and delivers on it. Today, people drive products, brands and markets more than ever before and it is important that Marketing takes this more seriously. Yet, Marketing can still be, and often is, a "one way street" guised as a "two way" approach. This book draws upon examples to describe each element of the title and the ways these interact. I also like the personalized, often 1st person narrative. This is a refreshing and educative read of modern-day Marketing.

Philip Kitchen, Research Professor in Marketing, ESC Rennes School of Business, France

ILLUSTRATIONS

1.1	The changing faces of the twenty-first-century consumer	6
2.1	A (somewhat incomplete) timeline of social media	58
2.2	An illustrative model of the new product development (NPD) process	66
3.1	Model of the motivational process	99
3.2	Model of the determinants of usability	105
3.3	The usability/efficiency demand cluster	109
3.4	The utility demand cluster	120
3.5	The desirability demand cluster	134
4.1	The multiple meanings of "design"	155
4.2	The Dyson DC01 cyclonic vacuum cleaner	158
4.3	Product form and life quality	163
4.4	Bloch's model of consumer response to product form	165
4.5	Natural mapping and stove-top design	166
5.1	Collegene mask by MHOX	243
Tables		
1.1	Rituals and associated customs and material artifacts	33
3 1	Millennial demands: research results	108

PREFACE

As consumers, we are surrounded by a steadily increasing array of things. In industrialized societies, there seems to be more of everything—products, brands, services, companies, retail settings, websites, and advertising. In a world that is rich in objects, the choices are endless, for better or for worse. I'm not the first to point out that the world was not always like this. In order to avoid the obvious cliché, I won't say that things were a lot tougher back when I was a middle-class child coming of age during the 1950s (a constant refrain of my parents' generation), but I will say that, in retrospect, the marketplace was a lot simpler and less cluttered. Nonetheless, people seemed pretty content with what they had. I don't remember anyone saying, "If only there were more brands," or "Why aren't there more things for me to spend my money on?," or "When is the next version of my telephone going to be launched?" The possibility that color was on the horizon for television, and perhaps even a remote control, was enough to fuel wild speculation about how advancing technology was soon going to make our lives better. In the meantime, we toted our transistor radios to the beach, honed our skills at the hula hoop, practiced writing with our typewriters, and spun our 45 r.p.m. vinyl records on our hi-fidelity record players.

Fast-forwarding to my years as a graduate student during the 1970s, I shake my head in amazement that I was able to complete my Ph.D. dissertation without owning a personal computer, having access to the Internet, or being able to use more sophisticated statistical tools than the rudimentary computer punch cards I had to tote over to the basement of the converted church/computer lab on the Temple University campus for analyses that were available the next day. The only real connection we had in those last years leading up to the digital revolution was a library card. But that is the way things got done for generations of doctorates that preceded me—and, with the exception of my contemporaries, without the punch cards. These sorts of observations help us recognize that people seem to have an uncanny ability to get by with what they have.

Needless to say, things are a lot different today. For the contemporary teen, the Internet has always existed, devices have always been portable, mobile phones have always been pervasive, and technology is always evolving. Consumers in general now must tolerate only a short wait for something new and improved to come along that is tastier, healthier, quicker-acting, stronger, cheaper, or longer-lasting than whatever preceded it. More jaded by the narratives devised by advertisers, people rely on their everyday experience with products, or the advice and recommendations of other consumers, to determine the relevance and utility of the things they buy and use. Experience leads to preferences and expectations and, over time, loyalties form and consumer-product relationships evolve. Products now, more than ever, play a central role in consumers' lives. That said, it seems that people rarely stop to think about their relationships with the things that they cannot do without, how products have altered their lives, what life would be like without the many offerings in the consumer marketplace, why products are designed the way they are, and how simple alterations in design could significantly influence satisfaction with the objects that are acquired and used. For marketers, consumer researchers, product manufacturers, and designers, however, these sorts of considerations provide the grist for their work.

Understanding and managing the complex relationship between consumers and products pose fundamental challenges for professionals who service the contemporary consumer. This book was written in the spirit of those challenges. There are some terrific textbooks on consumer behavior in the academic literature, but what often struck me about their content is how much of the focus is placed on consumers, and how little is discussed about the actual things that people consume and the role of product design in the consumption process. Overall, little attention has been devoted to the dynamic relationship between consumers and the functional and design elements of consumer goods and services. This book is intended to fill that gap through a consideration of product form and function from a consumer perspective, within the context of an evolving marketplace in which the centrality of the product designer is diminishing in the face of consumer participation, content creation, and sharing.

I want to thank Amy Laurens, Commissioning Editor for Marketing Books at Routledge, for her unbridled support for this book and her enthusiasm for what I promised to accomplish in writing it; Editorial Assistant Nicola Cupit, for her diligence in guiding the project to production; Pierre LeJoyeux for serving as a sounding board and sometime counterpoint for some of the ideas explained within; and, as always, my wife, Marie-Ange, for her devotion, inspiration, and patience.

Allan J. Kimmel Paris, France

CONTENTS

Illustrations Preface		vi vii
1	People and products in an evolving marketplace	1
2	Technology and innovation in everyday life	50
3	Consumer demands and product usability	97
4	Product design and aesthetics	151
5	Consumers as active participants in the product design process	209
6	The future of things	255
Index		298

PEOPLE AND PRODUCTS IN AN EVOLVING MARKETPLACE

By the end of this chapter, you will:

- appreciate the centrality of possessions in everyday life;
- understand the role of product possessions in creating a self-identity;
- gain insight into the nature of materialism, material and virtual possession attachments, and consumer/brand relationships;
- recognize the role of material artifacts from cultural and historical perspectives.

In contemporary times, the buying and having of material goods, along with a growing array of services, have become as central to people's sense of being as family and career. "I shop, therefore I am, and I am what I consume" may well be the defining dictum of modern woman and man. Since the dawn of the Industrial Revolution, commercial selling and buying behavior have represented activities that essentially define successive generations, as fully interwoven within the fabric of industrialized nations as technological, scientific, social, and political developments. Whether it be the clothes we wear, the homes and communities where we reside, the types of pets we own, or the color of the earbud headset through which we privately listen to our preferred musicians as we wend our way through public settings, our consumption choices are inseparable from who we are to ourselves and to others.

Individuals and societies are inevitably shaped—and in some cases, transformed—by the products and services they create and utilize. Consider, for example, mid-twentieth-century scenes of families huddled around radios and televisions, images that are as firmly etched in our collective memories as Norman Rockwell paintings, illustrating how these early forms of broadcast media brought intimacy to the consumption of information and entertainment as unified

experience within the family unit. Fast forward to the early years of the current millennium (the so-called "marketing 2.0 era") to recognize how the widespread adoption and use of electronic and mobile devices have rendered "intimacy" to the level of absurdity, as the Internet and its social networking offspring enable countless multitudes to connect through public revelations of personal thoughts and behaviors in 140 characters or less. We now nestle in front of the television in the bosom of our family while plugged into social networks, a phenomenon that has come to be referred to as "connected cocooning." We choose our friends and lovers on the basis of the books they read, the music they listen to, the celebrities they idolize, their preferences in foods and restaurants, and their Facebook "likes." "We just didn't have much in common anymore" could sound the death knell of a relationship on grounds of incompatibility as much in the sense of "He's a Mac, she's a PC" as due to a divergence in lifestyles and values.

Consumers and products: Can there be one without the other?

The expression "iPod, therefore I am" signifies that in the contemporary era people and products have begun to merge, both literally and figuratively, and that it is nearly impossible to think of one without the other. This singularity between people and products suggests both the positive and dark sides of consumption (see Box 1.1).

BOX 1.1 THE SINGULARITY IS NEAR

Renowned inventor and futurist Ray Kurzweil envisions a remarkable future—one in which the rapidly expanding rate of technological change will have profound transformative effects on human life, enabling people to transcend their biological limitations and amplify their intelligence and creativity. This staggering vision reflects what Kurzweil refers to as the "singularity," a shortened version of the term "technological singularity" that originally referred to the arrival of machine superintelligence, beyond which our ability to predict the future breaks down. For Kurzweil, singularity refers to a penultimate evolutionary epoch that will follow the merging of human technology with human intelligence.

Kurzweil's predictions are based on the premise that technological change is exponential rather than linear (a point that we examine in greater detail in subsequent chapters), as progress in any one area feeds upon itself as well as accelerating progress in other fields:

what would 1,000 scientists, each 1,000 times more intelligent than human scientists today, and each operating 1,000 times faster that contemporary humans (because the information processing in their primarily nonbiological brains is faster) accomplish? One chronological year would be like a millennium for them . . . an hour would result in a century of progress (in today's terms).2

As nonbiological intelligence eventually comes to predominate, the nature of human life will undergo radical alterations in terms of how people learn, play, wage war, and cope with aging and death. As elaborated in his best-selling 2006 book The Singularity is Near, the predicted union of human and machine presents both opportunities and threats to the human race:

In this new world, there will be no clear distinction between human and machine, real reality and virtual reality. We will be able to assume different bodies and take on a range of personae at will. In practical terms, human aging and illness will be reversed; pollution will be stopped; world hunger and poverty will be solved. Nanotechnology will make it possible to create virtually any physical product using inexpensive information processes and will ultimately turn even death into a soluble problem.3

The social and philosophical ramifications of these changes would be profound and, according to Kurzweil's detractors, the threats they pose are considerable. Others, however, view Kurzweil's ideas as a radically optimistic view of the future course of human development.

If it is true that we are what we consume, then it is not a stretch to say that consumption is central to what it means to be human. Further insight into what it means to be a consumer can be gleaned through a simple exercise by reflecting on what it is that one typically consumes during a typical day. Part of the answer, of course, is readily apparent through a consideration of the basic sustenance required to live—food, water, air, protection from the elements, and the like. In this sense, people consume to survive by striving to satisfy physiological (or "first-order"), unlearned needs. But we also regularly consume personal hygiene products like soap, toothpaste, hair shampoo, perfume; services such as electricity, heating, Internet service, mass transportation, and phone service; the ink and lead of writing implements we employ; ATM machines; electronic goods and services, including DVDs, online streams, radio and television; clothing; and health care items, such as headache remedies, birth control pills, cough syrup, massages, and the advice of doctors and pharmacists. We also consume various forms of entertainment, be it live (e.g., buskers on the street corner or in the subway; an opera performance or theater play; a football match) or recorded (a new Star Trek movie or Yo la Tengo CD).

Our brief exercise would not be complete without a recognition of the wealth of information and ideas we acquire and consume daily from the press, books, classroom lectures, podcasts, the Internet, computer tablet or smartphone, as well as the many intangibles we are apt to absorb only at an unconscious level, such as freedom and democracy, history, spiritual traditions, architecture, and art. As Richard Saul Wurman pointedly observed in his 1989 book Information Anxiety, "a weekday edition of The New York Times contains more information than the average person was likely to come across in a lifetime in seventeenth-century England,"4 suggesting the dramatic expansion of information consumption in the contemporary era. These various forms of consumption satisfy needs that are less linked to basic survival than they are to more unlearned, psychological motives. In common parlance in the field of marketing, each of these listed objects of consumption, whether basic or learned, can be considered to be a product, defined as "anything that can be offered to a market that might satisfy a want or need"5-a definition that I have adopted for this book. This admittedly broad definition encompasses the full gamut of consumables, including physical goods (Panasonic microwave oven; Dyson vacuum cleaner), services (pizza delivery, tax preparation), persons (Beyoncé, David Beckham), places (Disneyland, the Paris Opera, Hawaii), organizations (Greenpeace, Médecins Sans Frontières), and ideas (safe sexual conduct, drinking and driving, religion).

The recognition of the broad array of consumption objects also helps us recognize the breadth of *consumer behavior*. At one time, this term was narrowly conceptualized as roughly synonymous with buying behavior. Marketers focused on the exchange process involving shoppers and retailers, with consumers paying to acquire desirable, needed goods and services typically produced by manufacturers and service providers and offered by third parties in stores or other business settings. As the complexity of consumer decision making took front and center among the concerns of consumer researchers and practitioners, so too did the meaning of consumer behavior, which now encompasses the full range of the consumer decision-making process, beginning with the decision to consume (to spend or save, to have or not to have) and ending with product usage, disposition, and post-purchase reflections (e.g., "Am I satisfied with the purchase?"; "When shall I buy a new one?").

In a broader sense, consumer behavior also concerns processes related to having (or not having) and the ultimate state of being derived from the consumption process.⁷ This is to say that a comprehensive understanding of consumer behavior requires a consideration of how the possession and use of consumption objects influences who we are, how we perceive ourselves and others, and how these objects impact the broader social and cultural worlds we inhabit in our various roles as citizens, parents, professionals, and so on. In the remainder of this chapter, I address these considerations with a focus on areas of consumer psychology (micro-level) and culture (macro-level) that are intricately linked to consumers' engagement with products, including a consideration of materialism, self-identity, consumer/brand relationships, and cultural artifacts.

Engagement in the material world: From "consumer" to "prosumer"

"Engagement" is a concept that is redefining contemporary marketing. From the marketer's perspective, the new challenges of greater consumer connectedness via social networking and online communities have harkened the call for marketing strategies that engage potential customers in collaborative relationships with compelling content and force a rethinking of the traditional means by which marketers attempted to communicate with and influence customer targets. The traditional "top-down" marketing paradigm (business-to-consumer marketing, or B-to-C) whereby consumers were content to select goods produced, distributed, and promoted by companies and advertisers which decided what customers needed and desired has been turned on its head in an amazingly short span of time. In its place are bottom-up, grass-roots approaches (consumerto-consumer marketing, or C-to-C) that are shaping the business world in ways unimagined only a few decades ago. Consumers are increasingly taking control of the marketplace and are no longer merely passive participants in the wide array of activities that comprise the marketing enterprise. Whether it be the creation or modification of products, the establishment of prices, the availability of goods, or the ways in which company offerings are communicated, consumers have begun to take a more active role in each of the various marketing functions.

These developments have led some to call for a shift in nomenclature that replaces the term "consumer" with "prosumer," the latter of which is believed to better reflect how people have become more proactive and engaged in all facets of the consumption process. The prosuming notion—based on a combination of "producer" and "consumer"—dates back to pre-Internet 1980, when futurist Alvin Toffler envisioned a time when ordinary consumers would themselves become collaborative producers, actively improving or designing marketplace offerings.8

In Toffler's prescient vision, the production of goods and services within the marketplace, where people produce for trade or exchange ("Sector B"), would ultimately be displaced or substituted by those produced by ordinary people for themselves or for their families ("Sector A"). As an example, Toffler noted the Bradley GT kit, offered at the time by Bradley Automotive, which enabled customers to design their own luxury sports car using partly preassembled components, including a fiberglass body, Volkswagen chassis, electrical wires, and plug-in seats. The Bradley GT kit anticipated BMW's strategy prior to a new product launch of setting up an interactive website for users to design their own dream roadster. BMW automatically uploaded this information into a database and, based on data the company had already collected from loyal buyers, determined the most potentially profitable designs to put into production. This strategy was a precursor to BMW's Virtual Innovation Agency, an online collaboration between external innovation sources and developers from the BMW Group. BMW receives an average of 800 ideas, concepts, and patents annually from sources ranging from individual consumers to research institutes and other companies. The BMW Group directly puts into practice about 3% of the submissions in product design and service. This and other "crowd-sourcing" projects, such as those implemented by Dell, LEGO, and Starbucks, are discussed in greater detail in Chapter 5.

Just as the meaning of consumer behavior has broadened in recent decades, so too has our conceptualization of what it means to be a consumer. The changing nature of the modern consumer is depicted in Figure 1.1, as conceptualized by David Armano, social media blogger and managing director of Edelman Digital Chicago.⁹

In Armano's depiction, we see that consumers are no longer considered merely as customers or passive recipients of marketing content and offers, but as active and participative contributors to the marketing enterprise who actively create, produce, share, and monitor marketing-related content. As producers, an increasing number of consumers manufacture creative content (such as videos,

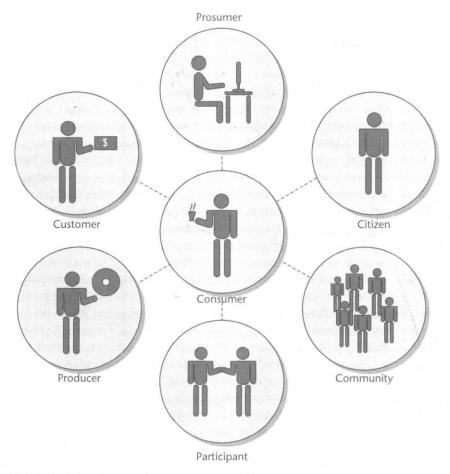


FIGURE 1.1 The changing faces of the twenty-first-century consumer Source: David Armano.

photos, blogs) and content-creating and publishing tools. As 3-D printing technology evolves and acquires widespread usage (see Chapter 2), consumers will literally become product manufacturers. In an ideal sense, consumers participate in the marketing context as good citizens, pursuing environmentally friendly marketing policies and practices, and monitoring marketing practices involving unsafe or potentially harmful products, advertising to vulnerable groups, aggressive selling techniques, deceptive pricing, and so on. In turn, companies are increasingly pressured to provide efficient and reliable products, and to market them using transparent and socially responsible approaches.

The centrality of worldly possessions in everyday life

If our challenge is to fully understand the dynamics that underlie the relationships between people and products, a good starting point is to consider the central importance of product ownership and usage at the psychological and cultural levels, in terms of the ways products and brands are used by individuals to define and reinforce their own and others' self-identities, assist consumers in connecting with others who share similar preferences, and serve as cultural artifacts that help determine the pattern of life adopted by the members of a society.

How products determine identity

There are many aspects of human psychology that have a bearing on how and why people interact with products-two that stand out are self-identity and materialism. If you have ever lost or had an important possession stolen, you are doubtless aware of the intimate link between products and self-identity. The loss of a treasured possession can be a traumatic, unsettling experience for an individual, sometimes as profound a loss as that of a good friend or beloved pet. An obvious reason for this is that the lost possession may be irreplaceable. But from a psychological perspective, perhaps even more significant is the extent to which a person's self-concept is determined in part by what that person owns; in short, the loss of one or more possessions may be experienced as a partial loss of self, an idea that is elaborated on below in our consideration of the extended selfconcept. The intimate relationship between products and the self goes beyond mere ownership-in fact, who we are to ourselves and others is a function of all the various marketing choices we make, be it the stores where we shop; the brands we prefer; or the products we own, use, and recommend to others.

At the heart of the relationship between products and one's personal identity is the self-concept, a psychological construction that can be understood as the sum total of beliefs and attitudes we each have about ourselves. The self-concept is at the heart of people's preoccupation with their self-identity, as implied by the question, "Who am I?," the answer to which is reflected in who one is to oneself and who one is with others. When a shopper opines, "I'd buy that miniskirt, but it's just not me," the comment belies how the self-concept plays a central role in

how consumers behave in the marketplace—if not for miniskirts, certainly some other consumer product, whether it is a sports car, motorcycle jacket, a tattoo or nose piercing, or a conservative three-piece suit.

In the social and behavioral sciences, some of the early ideas about the selfconcept were articulated by sociologists Charles Horton Cooley, George Herbert Mead, and Erving Goffman. 10 Cooley's "looking-glass self" (or "reflected appraisal") suggests that other people serve as a kind of mirror by which we can determine something about ourselves. Mead expanded this notion by suggesting that we come to know ourselves as a result of imagining what others think of us, and these perceptions are then incorporated into our self-concept. In this way, the appraisals received from others gradually mold the self-concept, especially when the feedback is received from credible, significant others in one's life. Applying the metaphor of a theatrical performance, and true to the Shakespearean assertion that "all the world's a stage," Goffman suggested that in public social contexts, the individual is like an actor, modifying his or her actions, appearance, and demeanor to manage impressions or to satisfy the expectations of his or her "audience." Thus, you may find that you are like a very different person in varying contexts or around certain kinds of people, even so far as using different products, brands, and services around your friends than you use around your family, or when accompanying a date to a fancy restaurant as opposed to going shopping with some close friends.

If it is true that "all the world is a stage," then just as actors strive to be liked and admired by their audiences, so too are people sensitive to the image they communicate to others with whom they interact in their everyday lives. Consider a situation in which a graduate student thinks twice about wearing his torn, but beloved, black leather jacket to a wine and cheese party attended by his professors. This sort of situation illustrates a typical concern about one's public image and the social appropriateness of engaging in specific consumption activities. In short, our self-image is shaped not only by how we currently think about ourselves (the actual self) and how we desire to perceive ourselves (the desired self), but also in part by our beliefs about how others see us (the social self). Thus, we often attempt to engage in behaviors that conform to the image that suits the situation, a personality trait known as "self-monitoring." High self-monitors are like social chameleons, better able than others to modify their behavior to fit the situation. In this light, we see that individual differences can play a significant role in terms of the impact of social forces on consumption and self-related behaviors.

As the foregoing discussion suggests, the self-concept is multidimensional and malleable over time. This implies that people can express their personality through actions that are consistent with their private view of themselves or by behaving in ways that bring them closer to their personal ideal. When actual and ideal self-images conflict, the individual must choose to behave more in accordance with the actual, ideal, or social self, a choice that will depend on various factors, including the public nature (i.e., visibility) of the action, the persons who