

AVAILABILITY OF OWNER'S MANUALS FOR 'SECOND-HAND' CONSUMER PRODUCTS

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ABSTRACT

This research concerns the availability of owner's manuals for second-hand (used or resold) consumer products. One-hundred people were approached in a shopping center mall and asked various consumer-oriented questions including: (a) whether they have ever purchased new and/or used 20 common consumer products (e.g., car, computer, power lawn mower, bicycle, etc.), and if so, whether those products came with an owner's manual or an instruction sheet when purchased; (b) whether they had personally sold any of the products, and if so, whether they transferred the owner's manual to the new owner; and (c) how much they would pay for the owner's manuals for each product assuming they had to purchase it separately. Also, they gave 9-point ratings on the products' familiarity, hazard level, and difficulty of use. The survey included several other questions including asking participants how they store their manuals, and for them to estimate the search time to find them. The findings show that while owner's manuals for some used-products are frequently transferred to new owners, others are not. In the latter cases, lack of owner's manual availability means that certain kinds of important safety information may not reach consumers—despite consumers wanting the information and the fact that manufacturers' included it with the product at its first sale. The results also indicate that people want access to owner's manuals for second-hand product. Participants agreed that including the owner's manual would help the sale of used products and that they were willing to pay extra for one (particularly for difficult-to-use products). These results suggest that manufacturers ought to address ways that would make it more likely that consumers retain the owner's manual and transfer it to subsequent owners at later resale, and provide consumers with convenient ways that they can request a replacement copy should the original manual become inaccessible.

INTRODUCTION

Most consumer products when purchased new are accompanied by an owner's instruction manual describing the products' set-up and operation. Generally these materials also include safety information describing any hazards associated with the equipment and safety precautions that should be taken while using the equipment. The presence of safety-related documentation is, in part, an indication that the manufacturer was not able to design out or guard against all of the hazards associated with their product. Therefore, the manufacturer must rely on supplemental documentation to effectively communicate necessary information to consumers to ensure proper safe use. Over the past number of years there has been a growing body of literature concerned with the usability of documentation and factors influencing the effectiveness of warnings. Surprisingly, however, with the exception of computer documentation and a few other studies, research is very limited on the topic of what people do with and how they use owner's manuals (Business Week, 1991; Celuch, Lust, and Showers, 1992; Showers, Celuch, and Lust, 1992; Wogalter, Barlow, and Murphy, 1992, in press; Wright, Creighton, and Threlfall, 1982; Young and Wogalter, 1990).

The purpose of the present research was to investigate consumers' access to and use of owners manuals with particular attention to products that have been purchased second-hand (used or resold). Rhoades, Frantz, and Hopp (1991) offered evidence that purchasers of used products may not receive an owner's manual for some used products at resale. The Rhoades et al. (1991) study has important implications for effective, safe use of resold products. In particular, if the documentation is not transferred, subsequent consumers will not have access to warnings, safe operating procedures, specified maintenance requirements, replacement part numbers, and other pertinent information in the manual. Under these circumstances, subsequent owners may be at substantial risk of personal injury and property damage, which they may or may not be aware of.

Rhoades et al. (1991) surveyed only four kinds of products and queried only a few professional used-equipment dealers. Thus while their results are suggestive, additional verification is needed to assure their generalizability. The present research is a larger-scale study that surveys owners of 20 categories of second-hand products with respect to their use of and access to the owner's manuals for these products.

METHOD

Participants

One-hundred individuals (50% of each gender) were surveyed at public shopping markets in the Raleigh-Durham, North Carolina area. Participants ranged in age from 16 to 66 ($M = 33.8$, $SD = 11.7$) and completed 9 to 20 years of formal schooling ($M = 14.8$, $SD = 2.4$). Participants were offered inexpensive gifts (each worth approximately one dollar) such as a NC State University monogrammed pen-and-pencil set or a coupon for a free frozen yogurt at a nearby business establishment in exchange for volunteering their time.

Materials and Procedure

Participants were surveyed on 20 durable consumer products. Table 1 shows the product set used in the study. Participants were asked: (a) whether they had purchased these products new and/or used, and if so, whether an owner's manual or instruction sheet accompanied the product when it was purchased; (b) whether they had personally sold any of the products, and if so, whether they transferred the owner's manual to the new owner; (c) how much extra they would pay extra (in dollars) for an owner's manual if it was not included as part of the used product's resale; and (d) whether they had

ever contacted the manufacturer of the products that they purchased in used condition. Also, they rated the 20 products on familiarity, perceived hazard level, and difficulty of use. These ratings were on 9-point Likert scales with 0 representing absence of quantity and 8 representing maximum quantity on the dimension queried. In addition, the survey asked several general (non-product specific) questions including: (a) whether they had ever been frustrated or injured trying to use a product because they did not have an owner's manual available, and if so, what happened, (b) where they tend to keep the owner's manuals for the products that they own, and (c) how long it would probably take to find an average owner's manual in their residence. Also, they were asked whether the inclusion of an owners manual would help or hurt (or make no difference) in the sale of used equipment, and whether they believed that it would be a good idea to have a sticker or label attached somewhere on the product giving the manufacturer's full address and phone number. Finally, participants answered a set of demographic questions (e.g., gender, age, and education level).

RESULTS

Table 1 shows the mean responses for the 20 products on several items from the survey aggregated across participants.

Table 1
Mean responses for 20 Surveyed Products

Product	Purchased Used	Purch. Used with Manual	Purchased New	Sold Used	Sold Used with Manual	Contact Mfr.	\$ Value of Manual	Familiarity Rating	Hazard Rating	Difficulty Rating
car	.79	.78	.63	.70	.84	.41	21.06	5.98	4.41	3.58
motorcycle	.16	.38	.13	.15	.53	.02	9.98	2.48	5.88	4.43
boat or boat motor	.18	.39	.12	.13	.69	.05	12.85	2.88	4.84	4.36
bicycle	.38	.13	.77	.30	.20	.03	3.06	6.00	3.09	1.79
microwave oven	.09	.67	.67	.15	.73	.07	4.93	5.71	2.75	2.99
power lawn mower	.21	.43	.63	.16	.50	.05	4.76	4.69	4.78	3.14
stereo receiver	.17	.35	.13	.12	.50	.12	6.66	5.05	1.10	3.22
stereo tape deck	.15	.07	.12	.13	.38	.08	4.76	5.20	1.21	3.04
compact disk player	.08	.50	.77	.06	.50	.09	5.70	4.64	1.26	3.47
answering machine	.10	.60	.67	.13	.46	.11	5.48	5.26	.86	3.27
stereo speakers	.19	.05	.76	.13	.31	.08	4.04	5.34	.97	2.25
VCR	.11	.36	.75	.11	.82	.08	8.46	5.33	1.09	4.59
television	.22	.23	.78	.21	.48	.15	7.09	6.22	1.77	2.87
video camcorder	.01	.00	.23	.03	.33	.02	8.03	3.66	1.22	4.76
camera	.13	.31	.66	.07	.43	.06	6.76	4.97	.85	4.14
power tools	.18	.28	.51	.08	.25	.08	5.47	4.24	5.67	4.22
exercise equipment	.20	.30	.52	.14	.29	.08	3.49	4.75	3.01	3.14
computer or printer	.12	.58	.40	.09	.89	.12	15.40	4.28	1.56	5.70
musical instrument	.25	.24	.38	.10	.20	.01	4.73	3.18	.92	3.33
washer or dryer	.28	.39	.56	.11	.36	.09	8.01	5.66	1.53	2.71

On average, participants reported purchasing 51% and 20% of the 20 products, new and used, respectively, at some point in their lives. Of those purchased used, only 35% came with an owner's manual. Used cars (79%), microwave ovens (67%), and computers (58%) were among the most likely to be resold with accompanying documentation. Among the products least likely to be sold used with documentation were bicycles (13%) and televisions (23%). Participants reported having sold on average 16% of the listed products (or a mean of 3.2 of the 20) in used condition to someone else, and in these sales, claiming to have transferred the documentation to the next owner 49% of the time.

Across all products, participants reported that they would pay an average of \$7.54 extra for an owner's manual assuming one was not available at the time of resale. Car (\$21.06) and computer (\$15.40) owner's manuals were the most valued; bicycle (\$3.06) and exercise equipment (\$3.49) manuals were the least valued. These dollar values had significant positive correlations to the products' perceived difficulty of use ($r = .55$), whether they reported having made contact with a product manufacturer ($r = .69$), and whether they sold the product used with the manual to someone else ($r = .73$), $ps < .05$.

Table 2

A selection of participants' written comments to a request to describe a frustration or injury that they might have experienced while trying to use, maintain, or repair a product without having an owner's manual or instruction sheet available.

- "Trying to get my answering machine to record for more than 2 seconds."
- "Could not figure out how to properly hook up audio/video equipment after losing manual."
- "Trying to set automatic recording feature on my parents VCR."
- "I tried to change cord on weed trimmer and cut myself."
- "Repairing a battery to a watch."
- "Trying to operate electrical test equipment without knowing function available on front."
- "Because you don't know how to fix something if it's broken. You don't know if it's a simple problem or totally broke."
- "Bought a word processor without manual, but I got one 'free' from the company."
- "Difficulty using VCR - programming to record."
- "Washer: belt broken and needed part numbers to replace it."
- "Trying to program VCR; took a long time because I had no manual."
- "Had difficulty operating video and computer equipment."
- "A million frustrations while fixing cars, washers/dryers, power tools, lawn mowers, tractors, and other machinery. Lacking instructions necessitates a do-it-yourself, learn-by-doing, trial & error attitude."
- "My first microwave was used. I had no idea how to set it so I ordered a manual from the company."
- "Frustrated trying to use a camera."
- "Power mower developed problems and had to take it to a dealer."
- "Not knowing how to set up a TV and VCR correctly so sent for manual."
- "Frustrated in setting up computer with incorrect manual enclosed."
- "I had to order a manual for a used car before I could reset several panel instruments."
- "Putting together items, programming VCRs, TVs, etc."
- "In using a saw, it was not clearly indicated that a push stick and hold down device was required to keep the wood from kicking back."

Many participants (47%) reported that they had been frustrated or injured trying to use a product because they did not have an owner's manual available. A myriad of comments were given by participants to a request that they describe their experience in this regard. A selection of these responses are listed in Table 2.

Participants estimated that it would take an average of 8.24 minutes ($SD = 7.5$) to locate an average owner's manual in their home. Sixty-six percent said they keep their manuals with other manuals in one place, 14% said they keep them in various places but were unsure exactly where, 11% keep them in receipt files or with other papers, 6% keep them in the original box that contained the product, and 3% gave other storage methods (including throwing them out).

Eighty-nine percent said that including the owner's manual with the used product at resale would help its sale. In addition, 96% agreed that having a sticker or label attached somewhere on the product with the manufacturers' full address and phone number would be a good idea.

DISCUSSION

Several implications can be drawn from these results. Three are mentioned here. First, the findings show that the owner's manuals for used-products may not be transferred from the original consumer to subsequent consumers. The highest level of owner's manual receipt was 79% (automobiles) which conversely means that 21% of used-car purchases did not include the manual. Receipt of the manual for other products were much less frequently reported, down to a low of 13% for bicycles. This particular result is interesting in that the U.S. Consumer Product Commission (1992) reports that approximately 650,000 hospital emergency room admissions per year are associated with bicycle accidents—one of the most frequent of any product sold in the U.S. marketplace. Familiarity with this product probably leads people to believe that it is less hazardous than it really is (Godfrey, Allender, Laughery, and Smith, 1983; Godfrey and Laughery, 1984; Wogalter, Brelsford, Desaulniers, and Laughery, 1991; Wogalter, Brems, and Martin, 1993). These beliefs may lead people to devalue the need for an owner's manual, which in turn leads them to possibly misplace it or throw it out. However, when this happens, important information on maintenance (e.g., replacing brake pads) and safe use (e.g. wearing a helmet) may be missed. So even though second-hand owners may want and need this information, it may not reach subsequent users and consumers of the product. Moreover these events occur despite manufacturers' attempts to reach consumers by including the owner's manual with the product when sold new.

Second, the results indicate people generally want owner's manuals for used products. This desire to have the product documentation is supported by data showing people

are willing to pay an extra \$3 to \$21 ($M = \$7.4$) for a copy of the owners' manual depending on the product category. Manufacturers should encourage original purchasers to retain the owner's manual (e.g., to store it in a place where they can find it later), so as to facilitate its transfer to a new owner upon any subsequent resale of the product. One way to do this is to explicitly emphasize the manual's value in terms of the useful information for them and future users. Another way is to design a compartment into the product to store the owner's manual. Moreover, purchasers of second-hand products should be made aware that they may need to explicitly request the manual from the seller (e.g., to avoid it being forgotten despite it being available).

A third implication is that manufacturers should provide ways in which consumers can request a replacement copy of the documentation if the original becomes inaccessible. One way to accomplish this is to attach a permanent label plate on the product which gives the full address (and telephone number) of the manufacturer and a product identification number. Virtually all of the participants favored having this information on products. Also, these results suggest that manufacturers can charge a reasonable amount for a replacement manual. This finding indicates that the costs to service product documentation requests are probably recoverable through the sale of the replacement manuals. Furthermore, manufacturers should consider developing technology to provide alternative methods to deliver product information to consumers. For example, product documentation could be made available through electronic media such as on computer storage systems that could be accessed via modem, through on-line services, by compact disk or by phone or fax. Additionally, virtually everyone in the U.S. has access to cassette players and video cassette recorders (VCRs) which not only would allow presentation of product information in a highly salient manner, but also allows real time demonstration of the product being used correctly (Racicot and Wogalter, in press; Wogalter and Young, 1991). These and other methods would aid individuals who are not the original owners ways to gain access to information from manufacturers on the products' correct operation and safety, which may, in turn, help to avoid potential accidents and injuries and reduce the likelihood of future product liability law suits.

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