# JOURNAL OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP

# The Effect of Motivation towards Consumer Behavior in Online Shopping

Nur Syafiqah<sup>a</sup>, Amizatulhawa Mat Sani<sup>a\*</sup>

<sup>a</sup> Universiti Teknikal Malaysia Melaka

# Abstract

Online shopping, a form of e-commerce, allows customers to purchase products or services directly from merchants over the Internet. This study aims to investigate how motivation influences consumer behavior when they shop online. Questionnaires and sampling techniques were used in the quantitative techniques of the study to obtain data from selected respondents. The introduction provides an overview of the framework for the overall research study. The processing methods used in this investigation are then covered, and the most important aspect is the quality of the research in terms of reliability and validity. In Malaysia, researchers used a random sampling approach to obtain data from respondents aged between 20 to over 50. 384 individuals in all participated in the survey. That data to analyze the data collected from the questionnaire form, the researchers chose to use the Statistical Package for Social Science (SPSS).

Keywords: Motivation; Consumer Behaviour; Online Shopping

# **1.0 Introduction**

Shopping on the Internet had grown in popularity as one kind of electronic commerce since the middle of the 1990s, when Web technology played a big role in this decade (Trong, Vu Khanh, & Gim, 2014). We now depend on the Internet as a tool for interaction and communication. We can obtain any information we require over the Internet when making online transactions, banking, marketing, alliances, mixing, online tutorials, online courses, online advertising, and other activities.

Online shopping, a form of e-commerce, allows customers to buy goods or services directly from merchants through the Internet (Singh & Sailo, 2013). Modern shoppers who desire speed and simplicity benefit from online buying. In the third quarter of 2021, Malaysia's e-commerce revenue climbed 171% annually to RM 279.0 billion. It kept up its upward trajectory with a 4.3% gain over the previous quarter. E-commerce sales increased by 23.1 percent yearly from January to September, hitting RM801.2 billion by misleading customers to boost purchases.

The motivations for consumer behavior can be hedonistic and utilitarian (Holbrook & Hirschman, 1982). Consumer behavior requires an understanding of shopping motivation since it affects purchasing choices. A type of consumer behavior known as "impulsive buying" involves unforeseen purchases (Schiffman & Kanuk, 2012). According to Rook and Fisher (1995), impulsive purchasing is the propensity of a buyer to make an unplanned

<sup>\*</sup>Corresponding author. E-mail:amizatulhawa@utem.edu.my

On the other hand, consumer behavior is crucial for online buying to keep customers' faith in our company. As a result, both the product's basic features and advantages are considered. Motivation, which originates from unmet needs and represents the rewards people work to obtain through actual action, is the primary factor that defines human behavior. Human behavior is mostly defined by motivation, which results from unfulfilled needs and stands for the rewards people strive to achieve through actual action. Consumer reactions to this incident reflect their ideas about hedonism and hedonistic consumption. Consumer behavior when making purchases online is essential for businesses to meet the needs of their customers.

19

purchase, motivated by the emotional and psychological qualities of the product and drawn to marketing persuasion. Online shoppers are more impulsive than those who purchase in person (Park et al., 2012).

# **1.2 Problem Statement**

Many individuals think that time restrictions have an even bigger influence on practical choices like avoiding purchasing delays. Chang and Chen (2015) claim that time stress increases utilitarian motivation and causes people to place a higher value on the most crucial product attributes. People are generally aware of the attributes needed for decision-making in practical situations, which allows the emergence of decision-making heuristics like those outlined by Dhar and Nowlis (1999) and lowers the amount of choice due to time constraints. Suspension. Contrarily, the customer must engage in hedonic use to experience buying qualities (Babin, Darden, & Griffin, 1994). The quickest route is only sometimes the most enjoyable. Thus, heuristics that cause shape time tension are unlikely to happen.

The type of use may impact a load of choice in addition to the effects of time restrictions. Sela, Berger, and Liu (2009) discovered that people tended to pick solutions that were simpler to defend since making selections from a variety of options was more difficult. Generally, utilitarian demands are easier to explain than pleasures (hedonic needs). As a result, they may choose a practical good instead of a hedonic good from a wide range of options. However, researchers have discovered that hedonic options stand out among several alternatives when there is a strong rationale. According to Baltas, Kokkinaki, and Loukopoulou (2017), consumers expect a wider choice of valuable items, but this diversity needs to be proven in real-world applications. The objective of the study to determine relationship between hedonic motivation with consumer behaviour and determine the relationship utilitarian design and consumer behaviour.

# 2.0 Literature review

# 2.1 Research on Online Shopping

Online buying refers to the process a customer uses to purchase a product or service online. In other words, customers can make their own time and comfortable home purchases from internet retailers. Real-time transactions carried out over domestic television before the World Wide Web was the first example of this idea (WWW). The technology used was videotext, introduced by M in 1979, and Aldrick created and installed the system in the UK. Ninety years later, T. Thanks to Berners-development Lee's first WWW site and browser in 1995, Walmart has increased its online shopping capabilities (Parker-Hall, 2019).

# 2.2 Consumer behaviour

Marketing has advantages for consumers, and one of those advantages is the rise of online marketing (Kuzj, 2015). Consumer behavior significantly impacts online marketing, which also significantly impacts business performance (Svatasova, 2016). Malaysian customers are becoming more accustomed to online marketing (Li-Ming & Wai, 2013). However, social networking and instant messaging are the principal uses of the internet for the majority of consumers. Even while this study sheds light on the behavior of online users, there needs to be more empirical research in this area, making it difficult to fully understand this behavior (Saeed et al., 2003). Consumer acceptance of online purchasing has already been investigated (Childers et al., 2001; Dabholkar & Bragozzo, 2002; Doolin, 2003). Previous studies (Childers et al., 2001; Dabholkar & Bagozzi, 2002; Doolin, 2003). Previous studies (Childers et al., 2001; Dabholkar & Bagozzi, 2002; Doolin et al., 2004; O'Cass & Fenech, 2002) have shown that perceived characteristics of online shopping and perceived risk associated with online purchases are the main factors influencing consumer attitudes toward and intention to shop online. Exogenous elements, including "client features," "situational factors," "product characteristics," and "prior online purchasing experiences," are among those that have an impact on these linkages.

Blackwell and Miniard (2018) distinguish between personal and organizational consumers. Personal consumers purchase goods and services for their use or as presents for others, and personal clients consequently make

purchases for their use. On the other hand, organizational customers purchase goods and services to manage a company, a government organization, or a non-profit. According to Blackwell & Miniard, "those acts directly engaged in purchasing, consuming, and disposing of goods and services, including the decision processes that precede and follow these actions" (2018). A more recent description or definition—which, in essence, is the same as the one above—is offered by A mold, Price, and Zinkkhan (2019). Their justification of consumer behavior provided above ought to be adequate to make the point clear.

#### 2.3 Motivation consumer behaviour

In particular, the theories of Engel, Kollat, and Blackwell (1968) and Howard and Sheth (1979) have contributed significantly to the creation of thorough models of consumer behaviour (1969). The use of motivation theory in consumer research was recently introduced by Burnkrant (1976) and Fennel (1975). The idea of "perceived instrumentality," or the employment of attitude objects in achieving the intended goal, is also included in Rosenberg's (1956) attitude model. According to this perspective, attitude is a part of motivation theory because it motivates, arouses desire, and controls conduct. Consumer research, however, only occasionally makes use of incentive theories and recent findings.

On the other side, the marketing idea is built around the needs, wants, and desires of the consumer. On the other side, the marketing concept is built on the needs, wants, and preferences of the consumer. It is amazing that the Maslow hierarchy of needs theory is still in use today.

Consumer motivation is a psychological phenomenon that drives people to look for and purchase goods and services that meet their conscious and unconscious needs and desires. If people are pleased with the demand, they may make additional purchases or find new goods and services that better meet their needs. Motivating words like "drive" and "goal" are commonly used in psychology. When the body's physiological systems are out of balance, drive is a psychological state that develops. Therefore, motivation may be described as a collection of behavioural responses that make us want to achieve a goal by noticing the difference between our current situation and the ideal end state (Lawrence, Carver, & Scheier, 2002).

# 2.4 Utilitarian Motivation

Shopping motivations that are more rational than emotional are typically created when someone wants to make the best use of their resources. Goal-oriented, effective, intentional, and logical buying behaviour is the result of utilitarian motivation. References According to [M. Wolfinbarger & M. C. Gilly, 2001], the majority of online shoppers are utilitarian. Three categories of utilitarian motive have been identified: (1) cost savings (P. L. To, C. Liao, & T. H. Lin, 2007); (2) convenience (P. Mikalef, M. Giannakos, & A. Patel, 2013); and (3) election. [N. Z. Hosein, 2012] claims that elections have the capacity to produce product variants. [P. L. To, C. Liao, and T. H. Lin, 2007] and [P. Mikalef, M. Giannakos, and A. Pateli, 2013] both discuss knowledge. According to P. L. To, C. Liao, and T. H. Lin (2007), capability refers to the accessibility of information regarding goods and services. The contrast between want (must) and must (should) drives the distinction between hedonistic and utilitarian shopping impulses (M. H. Bazerman, A. E. Tenbrunsel, and K. Wade-Benzoni, 1998). When motivation is based on need, the utilitarian aspect of motivation is more obvious. On the other hand, motivation based on want is more hedonistic [R. Dhar and K. Wertenbroch, 2001]. It is a dependable and practical aspect of the product (Engel et al., 1990). In terms of instrumental and practical benefits, the utilitarian advantage is more akin to a necessity than a luxury. For instance, network coverage in the context of mobile phones is a utilitarian benefit (Chittur, 2009).

# 2.5 Hedonic Motivation

Hedonic motivation refers to consumers who are more emotionally invested in things like experience, prestige, pleasure, social standing, feelings, and social image. [2016, T. Yuniati and U. Mufarrofah]. When interacting with a product, a person with a hedonistic consuming tendency is likely to have considerable reactions, including many sensory, imaginative, and emotional components. Hedonic drive, according to [K. A. Ahmed, 2015], is the driving force behind shopping when it comes to the furthest pursuit of engagement, happiness, awakening, imagination, pleasure, and passion. The following dimensions make up it: (2) The pleasure of shopping [M. J. Arnold & K. E. Reynold] is a purchasing activity that relieves tension, relieves sad emotions, and removes negative energy. (1) The perception of the shopping is a set of actions that allow people to expand and update their knowledge of current trends and fashions, as well as see new products and developments in the market. Customers use their shopping experience as a method to unwind, cheer themselves up, or for entertainment. 2007 [E. M. Taube]. The drive to purchase things for satisfaction is connected to enjoyment and self-worth. (3) Value shopping is described as "the act of shopping targeted to gain better value through acquiring lower prices, seeking price discounts, and hunting for products or services that have prices that are least expensive" (M. J. Arnold & K. E. Reynolds, 2003). There are also emotional reactions, sensory thrill, fantasising, and aesthetic anxiety (Hirschman et al., 1982). Experiences are frequently referred to as luxuries, and hedonic benefits are advantages linked to aesthetic rewards. A hedonic benefit in the context of mobile phones is the aesthetic attraction of their design and colour (Chittur, 2009).

#### 2.6 The Theory of Planned Behaviour (TPB)

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA), according to Arjen & Fishbein (1980); Fisher & Ajzen (2010). (TRA). TPB gauges a person's purpose at a particular location and moment. TPB currently demonstrates that behavioural intention, which consists of three elements—attitude toward conduct, subjective standards, and perceived behavioural control—influences consumer behaviour (Ajzen, 1991).

The first construct, which is an attitude, refers to a person's preferences for pleasurable or unpleasant, excellent or bad, beneficial or destructive goods and services (Crano & Prison, 2006). Let's say an arsonist ape has a positive outlook on a good or service. In that situation, the customer will naturally make the retailer feel happy because they intend to purchase the products or services.

Additionally, they claim that customers act impulsively when making purchases because of outside influences. The Theory of Buyer Behaviour (1969) and Hawkins Stern's (1962) Impulse Buying Theory in Online Shopping are used to lead this study. The dependent and independent variables used for this investigation have been mentioned in both theories. For instance, before buying a smartphone online, customers need be aware of additional resources, such as using an internet platform to compare prices, strategies for finding a reputable vendor, and time. information, etc.

# 2.7 Theoretical Framework



22

Figure 1: Theoretical Framework for the effect motivation toward consumer behaviour in online shopping

# 3.0 Research Method

# 3.1 Sampling Method

A non-probability sampling technique called intentional sampling will be used by the researchers in this investigation. Only the responses that are most pertinent to the research will be selected. The researcher can gather data from easily available respondents. To conduct surveys, researchers can share questionnaire templates online. The focal population is made up of data from the objectively gathered data that must be examined to draw the appropriate conclusions. Consumers who shop online will be the study's target respondent. Since 13 of Malaysia's major states have a high percentage of PC ownership, Kuala Lumpur was the research's choice. The study demonstrates that customers in city states with fully functional internet connectivity, like Kuala Lumpur, can engage in online shopping often.

# 3.2 Method & Data collection

Leedy & Ormrod, 2001; Williams (2011) define research methodologies as comprehensive steps a researcher takes before beginning a research topic. The quantitative research approach therefore focuses on measuring and evaluating variables to draw conclusions. Their main source of information for this study was a person-administered questionnaire survey. Using a questionnaire survey, researchers collected quantitative data. The Wallace Foundation (2010) employed person-administered surveys as a quantitative research technique that creates data from which the researcher may learn percentages without using interviews since respondents should read the questionnaire and follow-up on their response.

# 3.3 Data Analysis Method

The technique used to evaluate a huge amount of data demonstrates the relationship between the study's independent and dependent variables (Hashim et al., 2014). In order to evaluate the data, the researcher employed the statistical programme Statistical Package for Social Science (SPSS) after completing their data collection.

Regression analysis, Pearson correlation, and descriptive analysis were a few of the analysis techniques used in this study.

# 3.4 Pilot Testing

Before conducting the main study, the researcher will conduct a pilot test with 30 participants to allow for improvement of the questionnaire's content and confirmation that the sample was appropriate for the study. The pilot test's 14-item Coronach Alpha is 0.798.

# 4.0 Data Analysis

It demonstrates that there were almost 219 more female respondents than male respondents who answered the questionnaire, accounting for 57% of all respondents although being only 43% of the total. There were 113 responders in the high age bracket of 34 to 41 years old, which represents 29% of the total. A second high age range is 42 to 49 years old, with 94 responders and a percentage of 25%. There are 66 and 67 respondents, or 17% and 17%, respectively, in the middle age groups of 18 to 25 and 26 to 33. Only 44 respondents, or 12% of the total, fell into the age group of 50 and older. There are 107 replies, with the majority of them being Indian. Chinese respondents comprise 97, with the second-highest percentage, 25.3%. The next section, Malay and Others, lists the 90 responders, or 23.4% of the total. It demonstrates that 27% of students make up the 101 responders. There were 85 responders, and the self-employed group came in second with 22% of the total. Public sector workers and retirees made up 16% and 13% of respondents, or 62 and 51 respectively. Homemakers make up the final range (11.5%), with 44 responders.

# 4.2 Filter Question

# 4.2.1 Do you usually purchasing in online

Eighty-six percent of respondents—or people—have made purchases online. Only 14% of respondents said they had never done any online shopping.

# 4.2.2 How frequency you are purchasing in online

Most respondents selected every month and more than occasionally. The second-highest response, monthly online shopping purchases, received 44% from 158 respondents and occasionally from 166 respondents. Only 20 respondents provided the minimum response of "everyday online shopping," which is 5%.

# 4.2.3 What most frequency you are using for purchasing in online

It demonstrates that 169 responders, or 44% of students, are represented. With 96 responders, TikTok comes in second place with 27% of the total. Lazada accounted up 18% of respondents, or 70 people. A mazon is in the final range, with 25 responses, and its percentage is 4%.

# 4.3 Reliability Test

Та	Table 1: Reliability Test							
	Variable	Cronbach's Alpha	N of Results	items				
	Utilitarian	0.506	5 Moderate					
	Hedonic	0.606	5 Good					
	Consumer behaviour	0.739	4 Good	Very				

The hedonic value has a Cronbach's Alpha value of 0.606. Cronbach's value is moderate according to table 3.3, and the practical value of 0.506 is similarly moderate. Because all the variables meet the minimum requirements for the Cronbach Alpha values, the research can proceed to the next steps.

# 4.4 Pearson correlation coefficient

Table 2: Pearson correlation coefficient

	Utilitarian	Hedonic	Consumer
Utilitarian			
<b>Pearson Correlation</b>	1	.568**	.599**
Sig. (2 - tailed)		.000	.000
N		384	384
Hedonic			
<b>Pearson Correlation</b>	.568**	1	.611**
Sig. (2 - tailed)	.000		.000
N	384		384
Consumer			
<b>Pearson Correlation</b>	.599**	.602**	1
Sig. (2-tailed)	.000	.000	
N	384	384	

The correlation between utilitarian value and consumer behaviour is 0.599, with 0.000 denoting a significant level (p 0.05). This instance shows that good value and consumer behaviour are positively correlated. Next, consumer behaviour and hedonic value have a substantial positive link with each other, with a correlation coefficient of 0.611 and a significance level of 0.000.

# 4.5 Hypotheses Testing

The coefficient of determination (R2) was 0.620, while the value of R = 0.708 is shown in this section. Based on the preceding table, the independent variables of excellent value and hedonic value had a 62% influence on the dependent variable, which was the motivation for consumer behaviour. Other factors not investigated in this study account for the remaining 38%.

The utilitarian results have a t-value of 3.080 and a p-value of 0.002, whereas the hedonic results have a t-value of 7.930 and a p-value of 0.000. This suggests that there is a meaningful relationship between all the independent variables and the dependent variables.

Hypotheses	Results
H1: There is a significant relationship between utilitarian and consumer behaviour	Supported
H2: There is significant relationship between hedonic value and consumer behaviour	Supported

## Table 3: Summaries of Hypotheses Testing

#### 5.0 Conclusion and recommendations

This hedonic drive had a big impact on how people behaved when purchasing online in Kuala Lumpur, Malaysia. The factor's beta value was the highest of all the variables at 0.549, and the p-value was 0.000. The hypothesis test indicated that Hi was accepted because the p-value for this factor did not surpass 0.05. Therefore, convenience and time savings have had a substantial impact on consumer motivation to shop online.

This study shown that when combined with the results of earlier studies supported by et al (2019). According to Dey et al. (2019), online shopping offers customers convenience in terms of time and location. The researchers' findings also demonstrated that consumers could shop online from any location at any time using only a device that can access the internet.

Additionally, convenience and time savings affected consumer behaviour in online buying websites in Kuala Lumpur, Malaysia, according to Kang, Lo S., Chou, Y., and Teng C. (2013). Additionally, Akroush and Al Al-Debei (2015) claimed that online shoppers want to be convenience-oriented and that it is simple to compare prices between products and shop online at any time and from any location.

The researcher advises the future researcher to expand the study to include Selangor, Shah Alam, Ipoh, and other locations in addition to the Kuala Lumpur region because this study was only focused on Kuala Lumpur, Malaysia, and it demonstrates a lack of information that can be offered in this study.

Marketers and other interested parties have benefited greatly from this recent research. However, marketers and other outsiders must also pay attention to customer input from those who are already inclined to shop online. This is since consumer input is crucial data for predicting future consumer behaviour.

The study was only focused on Kuala Lumpur, Malaysia, and it shows a lack of information that can be provided in this study. The researcher urges the future researcher to expand the study to include Selangor, Shah Alam, Ipoh, and other regions in addition to the Kuala Lumpur region.

This latest study has produced significant benefits for marketers and other interested parties. Marketers and other outsiders must, however, also consider feedback from consumers who are already predisposed to shop online. This is so because information provided by consumers is essential for forecasting future consumer behaviour.

This study's drawback was further exacerbated by the need that respondents have sufficient background knowledge. Thus, it is challenging for researchers to gather correct data. In addition, the respondents' experiences

in 020 were similar, they refused to work with the researcher throughout the survey time, and they gave false information on the questionnaire, which were other limitations of this study.

# Reference

- Al-Azawei, A., & Alowayr, A. (2020). Predicting the intention to use and hedonic motivation for mobile learning:A comparative study in two Middle Eastern countries. *Technology in Society*, 62, 101325.
- Auf, M. A. A., Meddour, H., Saoula, O., & Majid, A. H. A. (2018). Consumer buying behaviour: The roles of price, motivation, perceived culture importance, and religious orientation. *Journal of Business and Retail Management Research*, 12(4).
- Bajger, A. (2020, March 5). What Is Motivation? (Consumer Psychology 101). Lieberman Research Worldwide. https://lrwonline.com/perspective/consumer-psychology-101-what-is-motivation/

Borgardt, E. (2017). Motivation and Consumer Behaviour. Konsumpcja i Rozwój, (4 (21)), 5-22.

- Bakos, J.Y., 1997. Reducing buyer search costs: implications for electronic marketplaces. Management Science 43 (12), 1676–1692.
- Barnes, J.G., 2000. Secrets of Customer Relationship Management: It's All About How You Make Them Feel. McGraw-Hill Inc., New York.
- Batra, R., Ahtola, O.T., 1991. Measuring the hedonic and utilitarian sources of customer attitudes. Marketing Letters 12 (2), 159–170.
- Blake, B.F., Neuendorf, K.A., Valdiserri, C.M., 2005. Tailoring new websites to appeal to those most likely to shop online. Technovation 25, 1205–1214.
- Bloch, P.H., Bruce, G.D., 1984. Product involvement as leisure behavior. In: Kinnear, T.C. (Ed.), Advances in Consumer Research, vol. 11, pp. 197–202
- Cai, D., Liu, J., Zhao, H., & Li, M. (2020). Could social media help in newcomers' socialization? The moderating effect of newcomers' utilitarian motivation. *Computers in Human Behavior*, *107*, 106273.
- Cai, J., Wohn, D. Y., Mittal, A., & Sureshbabu, D. (2018, June). Utilitarian and hedonic motivations for live streaming shopping. In Proceedings of the 2018 ACM international conference on interactive experiences for TV and online video (pp. 81-88).
- Deckers, L. (2018). Motivation: Biological, psychological, and environmental. Routledge.
- Geen, R. G. (2019). Social motivation. Companion Encyclopedia of Psychology, 522-541.
- Hartmann, P., Apaolaza, V., & D'Souza, C. (2018). The role of psychological empowerment in climate-protective consumer behaviour: An extension of the value-belief-norm framework. *European Journal of Marketing*

- Khatimah, H., Susanto, P., & Abdullah, N. L. (2019). Hedonic motivation and social influence on behavioral intention of e-money: The role of payment habit as a mediator. *International Journal of Entrepreneurship*, 23(1), 1-9.
- Kim, M. J., & Hall, C. M. (2019). A hedonic motivation model in virtual reality tourism: Comparing visitors and non-visitors. *International Journal of Information Management*, 46, 236-249.
- Kumar, A., & Kashyap, A. K. (2018). Leveraging utilitarian perspective of online shopping to motivate online shoppers. *International Journal of Retail & Distribution Management*, 46(3), 247-263.
- Mathwick, C., Malhotra, N., Rigdon, E., 2001. Experiential value: conceptualization, measurement and application in the catalog and internet shopping environment. Journal of Retailing 77 (1), 39–56.
- Miller, N.G., 2000. Retail leasing in a web enabled world. Journal of Real Estate Portfolio Management 6 (2), 167–184.
- Moe, W.W., 2003. Buying, searching or browsing differentiating between online shoppers using in-store navigational clickstream. Journal of Consumer Psychology 13 (1), 29–39.
- Morganosky, M.A., Cude, B.J., 2000. Consumer response to online grocery shopping. International Journal of Retail and Distribution Management 28 (1), 17–26.
- Park, C.W., Jaworski, B.J., Machinnis, D.J., 1986. Strategic brand concept-image management. Journal of Marketing 50 (4), 135–145.
- Parsons, A.G., 2002. Non-functional motives for online shoppers: why we click. The Journal of Consumer Marketing 19 (5), 380–392. Roy, A., 1994. Correlates of mall visit frequency. Journal of Retailing 70 (2), 139–161.
- Wakefield, K.L., Baker, J., 1998. Excitement at the mall: determinants and effects on shopping response. Journal of Retailing 74 (3), 515–540.
- Wang, H., Pallister, J.G., Foxall, G.R., 2006a. Innovativeness and involvement as determinants of Website loyalty:
  I. A test of the style/involvement model in the context of Internet buying. Technovation 26 (12), 1357–1365.
- Wang, H., Pallister, J.G., Foxall, G.R., 2006b. Innovativeness and involvement as determinants of Website loyalty:II. Determinants of consumer loyalty in B2C e-Commerce. Technovation 26 (12), 1366–1373.