Wine stress vs. Technostress: Communities and wine appreciation digital platforms

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Abstract. In this conceptual article, we propose to investigate the intrinsic motivations of wine appreciation platform user communities, such as Vivino. By helping to reduce the stress linked to the complexity of the purchasing and tasting experience, which we call wine stress, these technologies increase the pleasure of participating in the community and gamify the sharing of knowledge via the platform. At the same time, exposing the user both to social exposure within the community of wine enthusiasts, and thus to peer judgment, but also to cognitive dissonance in the tasting experience.

1 Introduction

Stress research has received extensive attention from Psychologists, but still limited from marketing researchers (Moschis, 2007) until recently (Hollebeek et al., 2023). Stress has been defined as a “state of imbalance within a person, elicited by an actual or perceived disparity between environmental demands and the person's capacity to cope with these demands.” (Maes et al., 1987, p. 567). While emotion is now widely studied by consumer behaviour researchers, little is known about the way product-related performance or consumption-related stress can affect consumer’s purchase and consumption (Weathers et al., 2007). The experience of stress as the perception of a dissonance between desired and actual states can appear before, during or after purchase or consumption (Mick & Fournier, 1998). Using a focus group methodology, Aylott & Mitchell (1998) presented grocery shopping as the most stressful type of shopping and identified in-store elements as the major stressors for consumers (especially queuing and crowding). Elements related to the products (poor labeling, information overload) were only mentioned by respectively 7% and 3% of the respondents. Similarly, the most important source of shopping stress mentioned by Sujan et al. (1999) was not choice-related but inferred by the store ambiance (e.g. personnel, presentation, unavailability of products). According to their survey, consumption-related stress only accounts for 7% of consumers perceived stress. A cross-country survey on shopping stress concluded to a certain globalization of the phenomenon (Fram & Ajami, 1994). With the development of online sales, the lessons from brick-and-mortar shops should be reevaluated.

According to Moschis (2007), stress appears solely when consumers are highly involved or when the risk perception associated with the consumption situation is high. Following the recommendation of Lepisto et al., (1991) we limit this study in scope, focusing on the role of stress in consumer behaviour for only one product category: wine. We consider the adaptative capacities of consumers studying moderators of wine-stress.

Wine is a very particular kind of experience good (Nelson, 1970): before drinking it, one cannot assess its quality, nor knows whether s/he will like it or not (Cardebat, 2017). Even after tasting the wine, one might know if s/he likes it or not, but feel unable to appraise its quality (Veale & Quester, 2008). Unlike standardized goods, wine quality is affected by weather conditions and production decisions (Ashenfelter, 2007). It is also sensitive to transportation (Jung et al., 2021), storage conditions (Lam et al., 2013), and aging potential (Verdú Jover et al., 2004). These characteristics trigger for wine customers an intrinsic quality uncertainty that emerges as an obstacle to their engagement in the product category and subsequently to market development: “To wine amateurs, the choice of which wine to buy can be a daunting and stressful experience” (Mazzoli & Palumbo, 2022).

The average time Australian wine buyers spend in front of the shelves is around two minutes in Australia, and below one minute in the United Kingdom (EBI,
So why do wine consumers spend such a short amount of time selecting such a complex product? Is it because they already know the product they will purchase (familiarity) or because they use consumption heuristics to cope with a stressful consumption episode? The role of stress has been highlighted in emergency purchasing situations (Samson & Voyer, 2014) but to our knowledge, the role of stress on consumer behaviour has never been investigated for a specific product category. To cope with consumption stress, consumers can use different strategies, including avoiding making a choice (avoidance coping (Albrecht et al., 2017)), using simplifying strategies or avoiding producing a judgment about the product quality themselves, and delegating their decision or appraisal to third parties (Luce, 1998). Understanding better specific product category-induced stress sources can help marketers adapt their strategies to better help customers find active coping strategies rather than avoidance coping.

Communities, via collaborative platforms such as Vivino, appear today as a mode of knowledge co-production (Goglio-Primard et al., 2020), and contribute to innovation and shared learning practices (Charue-Duboc et al., 2020). By reinforcing the feeling of belonging to a community, these platforms, in their current form, seem to meet the objective of reassurance; in this sense, they contribute to limiting the wine-stress of “discovering consumers” (Viot et Passebois-Ducros, 2010), while limiting the techno-stress generated by the use of a playful and simplified interface, at the risk of limiting the depth of the learning of the members of the community, or even to standardize their knowledge. But by promoting a non-disembodied and distanced experience, they can create a feeling of discomfort, generating cognitive dissonance.

We propose here the creation of a typology of acceptability of wine-stress by discovering consumers. We question the risk aversion of this type of neo-consumer based on sources of well-being/stress with technology (technostress and techno-well-being), and the degree of acceptance of wine-stress (stress linked to the complexity of the tasting experience - Visalli et al. 2023). The acceptability of wine-stress is then questioned in reference to the incongruity (Campbell et Goodstein, 2001), the use of anonymity of platforms, avoidance behaviors (marginal participation, even stowaway behaviour) but also the risk of dehumanization (Birot-Paquerot et al., 2021) of the tasting experience, or even the creation of a risk of cognitive dissonance. The construction of such a typology also makes it possible to integrate behaviours that are potentially harmful to the culture and reputation of the social platform, such as trolling or manipulation of opinions.

We will first present the identified product-related sources of stress identified in the literature. Then we will detail the studies underlying our theoretical model of wine-stress before declining the sources of consumer stress to wine in each consumer decision-making stage. In the last part of our paper, we will briefly present the coping strategies wine consumers can use to face wine-stress and insist on the delegation to technology. In the last part of the paper, we will explore the limits of technology as a stress moderator and draw future research agenda.

2 Theoretical model

2.1 Consumer stress

According to Aylott & Mitchell (1998), only a limited number of shopping stressors can be attributed directly to the products. The sources of consumer stress differ depending on the stage of decision-making consumers are engaged in. Table 1 summarizes the product-originated stress sources emerging in the different consumer decision-making stages, as well as the authors that illustrated the stress sources.

**Table 1.** Sources of consumer stress (inspired by Moschis 2007).

<table>
<thead>
<tr>
<th>Consumer decision-making stages</th>
<th>Stress Sources</th>
<th>Illustrated by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information-seeking</td>
<td>Lack of information</td>
<td>Schwartz, 2004</td>
</tr>
<tr>
<td></td>
<td>Lack of perceived ability to choose wisely</td>
<td>Visswanathan et al., 2005</td>
</tr>
<tr>
<td>Pre-purchase evaluation</td>
<td>Choice overload</td>
<td>Ketron et al., 2016</td>
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<td></td>
<td>Perceived choice complexity</td>
<td>Hansen, 1969</td>
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<td></td>
<td>Information overload</td>
<td>Glückler &amp; Sánchez-Hernández, 2014</td>
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<tr>
<td></td>
<td>Lack of confidence</td>
<td>Olsen et al., 2003</td>
</tr>
<tr>
<td>Purchase</td>
<td>Inability to locate and evaluate products</td>
<td>Sujan et al., 1999</td>
</tr>
<tr>
<td></td>
<td>Store ambiance</td>
<td>Sujan et al., 1999</td>
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<td></td>
<td>Unexpected product performance</td>
<td>Duhacheck, 2005</td>
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<tr>
<td>Post-purchase</td>
<td>Information dissonance</td>
<td>Schwartz, 2004</td>
</tr>
<tr>
<td></td>
<td>Social risk</td>
<td>Bories et al., 2014</td>
</tr>
<tr>
<td></td>
<td>Paradox of competence/incompt etence</td>
<td>Mick &amp; Fournier, 1998</td>
</tr>
</tbody>
</table>

2.2 Uncertainty, perceived risks & wine-stress

While quality uncertainty (Jones & Storchmann, 2001; Masset et al., 2013; Noparumpa et al., 2015), perceived risk (Aqueveque, 2006; Atkin & Thach, 2012; Bauman et al., 2019; Bories et al., 2014; Cho et al., 2014; Georgantzis & Tisserand, 2019; Gupta & Sajnani, 2019; Lacey et al., 2009; Lecat et al., 2016) and risk reduction strategies (Bruwer et al., 2013, 2017; Bruwer & Rawbone-Viljoen, 2013; Johnson & Bruwer, 2004a; Terrier & Jaquinet, 2016) have been widely studied in the wine context, wine-related stress has not yet been the object of a thorough investigation.
2.3 Wine-stress theoretical model

Based on the work of Kaplan et al., (1974) on perceived risks in product purchase, and the more recent publication of Kumar et al. (2022) about technostress we have built a theoretical model (Fig. 1) that we will test using the example of wine.

![Figure 1. Wine-stress theoretical model.](image)

Kumar et al., 2022 model is built on the impact of possible negative experiences suffered when using new-age technologies (perceived risk) generating technostress (wine choice and/or consumption-related stress) (moderated by marketing efforts and familiarity) and its subsequent impact on consumer engagement (engagement for the product category) (moderated by coping strategies (delegation/avoidance)). According to Kaplan (1974) perceived risks in product purchase are mainly (1) functional, in this case, related to the taste of the wine, (2) social, if the level of quality is not adequate to the people it is drunk with, causing embarrassment (3) financial if the low level of quality of the product implies loss to the customer (4) time-related, if the inversion is finally not satisfactory. Wine quality uncertainty coupled with possible negative outcomes influences directly the perceived risks related to wine purchase and consumption. Those perceived risks are moderated by wine familiarity and marketing efforts displayed to fill the information asymmetry but can give birth to consumer wine-stress. Wine customers can use coping strategies that will work as moderators to wine-stress and foster their engagement with the product category.

3 Sources of consumer wine-stress

3.1 Information-seeking related stress

3.1.1 Lack of information

In the case of wine, the lack of information can seldom be a stressor, except if by lack of information, we understand lack of information about wine quality (Ockzowski & Doucouliagos, 2015). Wine producers do their best to reduce information asymmetry by displaying marketing efforts to convey quality to the consumers (e.g. adding information on the front and back labels of the bottles) (Charters et al., 1999; Dimara & Skuras, 2005; Müller et al., 2010; Müller & Szolnoki, 2010; Roma et al., 2013; Tang et al., 2015). Poor labeling had been mentioned as a stressor for wine consumers (Aylott & Mitchell, 1998). In the case of wine, the stressor is not a general lack of information but the absence of the relevant information for the consumer. According to the literature, wine consumers have a positive willingness to pay for information as diverse as Country of Origin (COO), Geographical Indications (GIs), Expert Reviews, grape variety, presence of added sulfites or wine description, among others (Costanigro et al., 2014; Danner et al., 2017; Garrido et al., 2021; Lange et al., 2002). Their absence on the packaging could then act as potential stressors.

3.1.2 Lack of perceived ability to choose wisely

Self-efficacy theory (Bandura, 1977) applied to wine would be a perception a wine consumer has about his/her ability to mobilize knowledge to adequately select a bottle of wine. Self-efficacy has an operational role and affects significantly wine consumers' behavioural intentions (Cobelli et al., 2021). Conversely would emerge a “state of imbalance within a person, elicited by an actual or perceived disparity between environmental demands and the person's capacity to cope with these demands.” (Maes et al., 1987, p. 567) i.e. wine-stress. Consumers subject to low self-efficacy tend to rely more on external sources of information whereas those with higher self-efficacy do not act similarly, and rely on their own taste (Bishop & Barber, 2012). In the case of winespecially, self-efficacy is interrelated to situational self-esteem, especially in the case of social consumption, with more knowledgeable peers (Taylor & Barber, 2016). The lack of perceived ability to choose wisely (Viswanathan et al., 2005) in the information-seeking stage will most likely be tightly connected to the lack of confidence (Olsen et al., 2003) in the pre-purchase stage.

3.2 Pre-purchase evaluation-related stress

3.2.1 Choice overload

The (i) excess of choice of products and points of sale, (ii) similarity of products and (iii) ambiguous, misleading, or inadequate information conveyed through marketing communications are the three dimensions of consumer confusion, as detailed by Mitchell and Papavassiliou (1999). Those dimensions doubtlessly fit the wine category, despite the scant scientific research dedicated to the concept of consumer confusion for this product category (Drummond & Rule, 2005). The case of wine is particularly unique: where most retail categories have less than a dozen brands, wine can have hundreds (Lockshin & Corsi, 2012) and consumers might not be able to perceive accurately differentiation between products (Chivu-Draghi & Antoce, 2016). Choice overload appears to be significantly though moderately (0.25 & 0.23) correlated with consumer shopping stress according to studies by Albrecht et al., (2017) and Sujan et al. (1999). Exposing study participants to 18 product attributes in the form of tasting notes had a significant impact on their perceived stress, when it was not significant for 9 attributes (Olevskyi, 2022) Wine is one of the consumer product categories where the diversity of alternative options is the highest (Lockshin & Corsi, 2012) so the correlation between choice overload and wine-stress might be stronger than for other product categories.
3.2.2 Perceived choice complexity
Decision-making is a rather simple task performed daily, and for most purchases, it is a repetition of a response that proved satisfactory in similar situations in the past (Hansen, 1969). Consumer purchasing decisions are being fast processed (Steichen & Terrien, 2009). The study of Basu (2018) suggests that experience goods are associated with only a third of the search intensities of search goods. For example, in a supermarket, consumers react to cues that act as market signal, which interpretation and evaluation determine their purchasing decision (Sáenz-Navajas et al., 2013). Some products imply the use of more cues than others; Steichen and Terrien (2009) use the example of wine as a complex product for consumers.

The impact of choice overload on consumer wine-stress is strengthened by the complexity of the product category (Bruwer et al., 2013; Casini et al., 2008; Drummond & Rule, 2005; Ketron et al., 2016).

Wine is unanimously qualified by academics as a complex product category, considering, beyond the brand, the existing diversity of grape varieties and blends, production methods, prices, producing countries and regions, winemakers, terroirs, vintages, regulations, labels, design, bottles and packaging (U. R. Orth et al., 2007). Even official signs of quality (e.g. the difference between a regional appellation, a village appellation, a premier and a grand cru in a region like Bourgogne) remain poor indicators of quality for most wine consumers and are not sufficient to cope with wine-stress (Bories et al., 2014).

3.2.3 Information overload
In the pre-purchase stage, both choice overload and perceived choice complexity lead to information overload (Ketron et al., 2016). Information overload is a common issue in retail environments, and a source of stress for engaged customers (Ketron et al., 2016). It can be caused by both a proliferation of brands and decision-relevant information in a product category (Mitchell et al., 2005). Numerous studies have examined the large array of extrinsic quality cues in wine selection, in which consumers have differing confidence (Storchmann, 2012).

The internet is offering unprecedented access to detailed information about products, including price comparisons (www.wine-searcher.com) and expert reviews (www.wine-lister.com), it results in a subsequent search cost reduction (Lynch Jr. & Ariely, 2000) providing opportunities for optimal decision-making (Branco et al., 2012). Recent publications show that social media are gaining importance as a tool for creating and disseminating wine-related information (Bories et al., 2018; Cosenza et al., 2015; Higgins et al., 2016; Atkin and Thach, 2012). Nevertheless, this access to information and reduction of information asymmetry does not allow optimal situations because consumers are limited, especially in their cognitive capacity for processing information (Bettman et al., 1998). This abundance of information and choices, far from being perceived as an opportunity, is stress-provoking, especially for low-involved wine consumers (Barber et al., 2007).

3.2.4 Lack of confidence
Picking the right wine or evaluating a wine can be considered a challenge, and the appraisal of this challenge may induce stress to the customers because they lack confidence in their ability to process the enormous amount of alternatives and related information (Lazarus and Folkman 1984). More generally, and regardless of the level of involvement or knowledge of the consumers, the lack of self-confidence has been identified as a trigger for wine-stress in the pre-purchase stage (Barber et al., 2008; Olsen et al., 2003).

3.3 Purchase-related stress
3.3.1 Inability to locate and evaluate products
Olshavsky and Granbois (1979) suggested that a significant proportion of consumers of a product category may not engage in pre-purchase activities. Consumers can decide to purchase wine beforehand but will leave the decision about the precise wine they will select until they are in the store (Parsons and Thompson, 2009). They may have no well-defined preference before entering the store or restaurant and will construct it when faced with the need to make a decision (Bettman et al., 1998). They would then face knowledge and choice uncertainty based on some certainties they may have acquired about specific quality cues, considered as sub-decision (Mitchell, 1992).

3.3.2 Store ambiance
Our paper focuses on product category-induced stress, but store-induced stress couldn’t be occulted. For a study on the emergence of stress in the purchase of groceries, see Aylott & Mitchell (1998). When studying wine Lockshin & Kahrimanis (1998) did not mention stressors, but mentioned low score on parking availability, one of the stressors mentioned by Sujan et al., (1999). If store ambiance is recognized in the marketing literature as a major source of stress when shopping, no study has been dedicated specifically to wine.

3.4 Post-purchase-related stress
3.4.1 Unexpected product performance
One of the most widely identified post-purchase-related stress for the wine category is taste-performance-related (Bories et al., 2014). As mentioned earlier, all wine consumption involves uncertainty and an act of valuation. The valuation moment can thus, because of the intrinsic nature of the wine and the possible perception of a disconformity with the expected, be the source of dissonance (Antal et al., 2015). Purchasing wine is exposing oneself to the functional risk of opening a bottle of wine that might be corked or might not correspond to the expectations (Mitchell & Greatorex, 1989). In a
recent study on Portuguese wines, Ferreira et al. (2021) up to 24% of the participants declared a dissonance (an inadequation between expected and perceived quality) for wines sampled from Alentejo region. This dissonance can be either positive (good surprise, the wine is better than expected) or negative (the quality is worse than expected), and can be influenced by external information (Vecchio et al., 2019).

3.4.2 Social risk
Will the wine I selected please the other drinkers? Risk perception impacts wine purchase behaviour (Lockshin et al., 2006; Mueller et al., 2008), and a negative social perception provoked by the selection of a wine, more than the selection itself, can be a stressful perspective (Atkin & Thach, 2012). Consumer preference is influenced by consumption situations and purchase goals, selecting different wines for public or private consumption using risk reduction strategy in public and being more prone to risk a negative outcome in private (Ratner & Kahn, 2002). The goodness of fit (Lockshin & Corsi, 2012; Spawton, 1991) is an important determinant of wine purchase behavior. Wine-pairing suggestions placed on the menu help reduce social risk and thus increases wine-by-the-glass sales (Terrier & Jaquinet, 2016). Social risk and subsequent level of stress are higher in restaurants than in off-premises where social pressure is lower (Bruwer & Rawbone-Viljoen, 2013; Hall et al., 2001; Lacey et al., 2009; Ritchie, 2007). The perspective of a mismatch between the wine quality and the consumer’s self-image can generate stress (Taylor & Barber, 2016). The level of perceived stress is also higher when the wine is purchased for a gift than for self-consumption because the level of knowledge of the receiver might negatively impact its perception of the wine value, or because the involvement of the giver is higher than in other situations (Boncinelli et al., 2019; Olsen et al., 2003). Social pressure is moderated by age, the older the wine drinkers, the less social pressure they feel (Bauman et al., 2019; U. Orth, 2005). Perceived social risk is situation and involvement related.

3.4.3 Information dissonance
Expectations have an impact on sensory experience (Siegrist & Cousin, 2009). When tasting wine and performing wine evaluation, wine consumers seek consonant information to avoid disconfirmation. More than provoking stress, the presence of dissonant information after tasting wine in most cases leads to a revision of the evaluation (Schäufele & Hamm, 2017).

Almenberg and Dreber (2009) studied the relationship between price and satisfaction and discovered that the disclosure of the price of a wine prior to the tasting provokes a bias and increases the subsequent satisfaction of the consumers. Similarly, wine critics’ ratings influence not only expectations, but also the sensory experience and assessment of wine (Siegrist & Cousin, 2009). Being aware that a wine is supposed to be good does literally make it taste better, sodecision delegation to wine experts or social surrogates could have a positive influence on consumer post-purchase satisfaction.

4 Coping strategies
4.1 Abandonment
When faced with complexity, and taking into account the opportunity cost of time-pressure (Broniarczyk & Griffin, 2014), the consumers need to set up an adapted strategy to cope with the risk of suboptimal decisions (Yoon et al., 2009). Wine is also perceived as a riskier beverage because the lack of knowledge can result in a degradation of social image (Mitchell & Greatorex, 1989). Stress is of particular interest to marketing researchers because the first coping strategy is abandonment. According to Albrecht et al. (2017), when facing shopping stress, wine consumers can either set up stress-reducing strategies (active) or decide to abandon the purchase (avoidance) (Albrecht et al., 2017). Consumers can cope with stress by resorting to consumption coping (shopping abandonment) they can also resort to non-consumption coping (social support) (Moschis, 2007). Wine consumers tend to avoid stressful situations if there is an option to do so (Bruwer & Campusano, 2018).

4.2 Risk reduction strategies
4.2.1 Simplifying
According to the literature, most wine consumers are risk averse and use risk reduction strategies in their purchasing decision (Spawton, 1991). The use of risk reduction strategies increases with the complexity of the product (Johnson & Bruwer, 2004a). Decision heuristics is the habit to focus on only a few characteristics of a product to make the decision when facing too complex a choice or information availability (Bettman et al., 1998). Chaney (2000) studied the importance of decision heuristics for wine buyers and realized that extrinsic cues had a direct influence on purchasing decision. They can also opt for stores with a more limited choice, or for famous brands.

4.2.2 Interpersonal delegation
If the stressed customers do not opt for an abandonment strategy, they can opt for social support (Moschis, 2007) and select wine following the interpersonal delegation. They can seek advice from or delegate the decision-making to someone considered more knowledgeable (Stone, 2016). The delegation has been studied widely in the medical field but has been seldom applied to business research (Yoon et al., 2009). It is an exception to the decision-making models and can be used to simplify decision-making. Its study can be especially accurate in the case of complex decision-making due to information overload (Camacho et al., 2014).

As many wine consumers consider they lack both knowledge and the ability to make an accurate sensory evaluation of the wine, they tend to delegate the
information search and rely on experts’ advice for their wine selection. Considering the results obtained by Thach and Olsen (2015) it is especially true for high prices wines. Consumption context also impacts highly on the decision process, and especially in the case of fine dining in restaurants, Consumers are prone to delegate their wine selection to the sommeliers (Jaeger et al., 2010; Ben Dewald, 2008).

Wine consumers can, depending on their physical and mental availability (Sharp, 2010), perform formal delegation to experts like wine sellers or sommeliers (Jaeger et al., 2010; Ben Dewald, 2008), and informal delegation to social surrogates - family, friends, relatives, colleagues (Atkin & Thach, 2012) relying on the difference in perceived expertise between the surrogate and the consumer. Some studies included the role played by surrogates in the decision process, especially during the information research phase (Atkin et al., 2007; Higgins et al., 2016) when not relying on the experience of others to make the purchase decision (Johnson & Bruwer, 2004b). But the surrogates may well be more than passive providers of information or recommendation and have active participation in the purchasing decision, as suggested by Aggarwal and Mazumdar (2008). The use of surrogates could therefore appear as an alternative decision-making strategy, the consumer deciding not to choose, but to delegate decision making and subsequent accountability (Oshavsky, 1985) to avoid the risk of sub-optimal decision outcome, and related stress (Mitchell & Papavassiliou, 1999).

4.2.3 Delegation to technology

More and more wine consumers use electronic word of mouth (eWOM) to make their wine selection (Fiore et al., 2016). Popular wine apps like Vivino count more than 64 million users. Scanning a wine list at restaurant, a wine label or a wine shelf allow them to see in real time the peer ratings and prices of the wines displayed. They can then delegate their purchasing decision to the wisdom of the crowd (Kopsacheilis et al., 2023).

5 Technology uncertainty

The joint development of the market of ‘discovering consumers’ (Viot et Passebois- Ducros, 2010), on the one hand, who have a limited level of product culture, but whose motivation to discover is high, and mobile digital approaches on the other. These mobile digital solutions take the form of C2C (consumer to consumer) community platforms and constitute a space for communication with user communities, in the sense of Tönnies et Harris (2001). As Chaboud et al. (2018) have shown, these platforms possess the three constitutive elements of a community (Hillery, 1955): a shared concern (in this case wine), a common space (the platform in question, or any other virtual or even real space that makes exchanges possible) and a tendency to interact within this dedicated space. The resulting artifact allows for the nourishment and development of a common social capital (Adler et Kwon, 2002; Kwon et Adler, 2014) shared through the platform.

5.1 Technology as a consumer stress factor

Moriuuchi et Takahashi (2022) identify a mediating effect of trust in the platform on the one hand, and engagement in the community (which they measure by the intention to reuse the C2C platform and interactions via reviews posted on the platform itself).

For his part, Gintrac (2007) postulates that purchasing decision processes have evolved, with consumers referring more to the community or alternative prescribers (other than the distributor or the producer). While these prescribers in 2007 were mainly the written press and tasting clubs, they are now enriched by community platforms and mobile applications, which contribute to the dissemination of specific knowledge and the reduction of informational asymmetry, giving the illusion of a more informed choice.

5.2 Perceptive dissonance with technology suggestion (virtual community)

When writing about wine, novices focus on expressing their preference and satisfaction, i.e. if the wine matches their expectations, while experts are driven by technical considerations regarding quality, a pattern also visible online (Oczkowski & Pawsey, 2019).

Table 2. Technostress sources.

<table>
<thead>
<tr>
<th>Low acceptability of wine-stress</th>
<th>Salutogenic sources</th>
<th>Stress sources</th>
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<tbody>
<tr>
<td>Rejection of incongruity</td>
<td>- Community support</td>
<td></td>
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<tr>
<td>Acceptance to incongruity</td>
<td>- Cognitive dissonance</td>
<td></td>
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<tr>
<td>Gamification</td>
<td>- Dehumanization of experience</td>
<td></td>
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<tr>
<td>Re-enchantment of the tasting experience</td>
<td>- Stress of first tellers</td>
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<tr>
<td>- Possibility of acting as a stowaway</td>
<td></td>
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<tr>
<td>- Empowerment of learning</td>
<td>- Technoaddiction</td>
<td></td>
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<tr>
<td>- Increased competence</td>
<td></td>
<td></td>
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<tr>
<td>- Community recognition</td>
<td></td>
<td></td>
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<tr>
<td>- Narcissism</td>
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<table>
<thead>
<tr>
<th>High acceptability of wine-stress</th>
<th>Salutogenic sources</th>
<th>Stress sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Information asymmetry</td>
<td></td>
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<tr>
<td>- Anonymity</td>
<td></td>
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<tr>
<td>- Marginalist thinking (I'll be drowned out by many opinions)</td>
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<tr>
<td>- Humility</td>
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Figure 2. Wine-stress vs technostress.

Figure 2 shows that the wine stress follows a quadratic curve as a function of the frequency of use of the application. Therefore, in the first stage, the application reassures the user by providing information specific to wine tasting. It contributes to the learning of the tasting experience, suggesting elements of language and perception.

Technostress follows an affine curve and tends to increase with the frequency of use of the application, or even competing applications within the user's technological ecosystem (frequency of notification, interference with personal data, profiling of uses via the application, etc.). Mobile applications are integrated into the personal information systems (PIS) but contribute to a risk of addiction that is increasingly studied in the literature and can lead to what Rowe et al. (2023) describe as problematic smartphone dependency (PSD). The installation of a mobile application on a device is done at a marginal (cognitive) cost, and its use is greatly facilitated, due to the gamification of uses.

We can postulate that as long as the stress linked to the tasting experience is higher than the technostress, subjects will be motivated to use the application. In other words, the rewards of participating in the platform are greater than the stress generated by its use. Once a certain point has been reached, the platform's suggestions in terms of tasting, feeling, and technicality can generate emotional or even cognitive dissonance in the user. This is all the more significant as an application like Vivino matches its tasting notes with suggestions whose frequency is mentioned. This creates a potential distance from the social norm for the user if he is not able to experience and feel a calibrated tasting experience. This is one of the components of technostress described by Brod (1984): over-identification with the technology. It then becomes uncomfortable to use the platform and to comply with its suggestions. One then leaves the attachment or comfort zone, to turn away from this technological/social crutch, in a state that could be described as between techno-invasion and techno-uncertainty.

To paraphrase Claise (2012, p. 106) in his commentary on the work of William Burroughs, the “I am not the author of my desire, this desire is the fiction of someone else.” And this is notably what community platforms offer here. By formatting the constituent elements of tasting (Visalli et al., 2023), they propose to sift through the tasting experience, in particular... Because of the discomfort generated, i.e. the cognitive dissonance resulting from the creation of the distance to the social norm, the application then becomes a transitional digital object, which one is called upon to leave.

Although communities, and their digital counterpart represented by collaborative platforms, clearly appear to be a mode of co-production of knowledge and innovation (Goglio-Primard et al., 2020), the fact remains that they should be the subject of further investigation, particularly with regard to innovation and shared learning practices (Charue-Duboc et al., 2020). By helping to strengthen the feeling of belonging to the community, platforms, in their current form, seem to meet the objective of reassurance, while limiting the technostress generated by the use of a playful and simplified interface, at the risk of limiting the depth of learning of community members or even standardising their knowledge. This phenomenon seems to be amplified by mobile applications, available in several countries and on several continents. The tasting experience is therefore more like benchmarking, or even isomorphism, than simple sharing of experiences. The illusion of a common experience is created, but it is clearly not the same thing.

6 Future research agenda

The next step in the design of our wine stress model will be to test, using experimental economics methodologies (Fehr et Camerer, 2007; Fehr et Fischbacher, 2002), the influence of the publication of reviews on the Vivino platform on the tasting of subjects in the laboratory of experimental economics. We will try to test whether consensus building (Matz et Wood, 2005) between subjects and the opinions of community members, issued via the Vivino platform, will contribute to reducing wine stress, at least in the first stage. We propose to study, via an experiment, how the use of a prescriptive application reduces informational asymmetry and contributes to the reassurance of a group of individuals on the formulation of a tasting review, by modifying their personal norms, and their behaviour during a tasting experience. We will analyse the prescriptive influence of the platform on their ability to formulate an opinion.

In a second stage, we will analyse, through successive iterations, the way in which the platform's suggestions would contribute to create a cognitive dissonance capable of disturbing the agents, and generating another form of stress, similar to what we have identified as techno stress, notably linked to a social exposure of preferences, and to the disruption of the tasting experience. Our model will seek to account for two main facts: (i) to measure whether norms erode over the course of iterations; (ii) the attrition of norms depends on the set of possible economic choices, so that the platform can potentially influence them.

Among other developments, we will also be able to see the influence of the opinions issued by the new gurus, promoted by the platforms themselves, on the tasting experience, and the generation of potential cognitive dissonance and other induced effects on the subjects.
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