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Can vendors' age limit control measures increase compliance with the alcohol age limit? An evaluation of measures implemented by three Dutch liquor store chains

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ABSTRACT

Background: Dutch liquor store (off license) chains have voluntarily developed and implemented age limit control measures to increase compliance with the Licensing and Catering Act (LCA), aimed at prohibiting vendors from selling alcohol to minors (< 18 years old). This study investigates differences between three liquor store chains in their style of self-regulation and how that affects compliance with the LCA in four domains (capturing processes in age verification, instructing staff, monitoring performance/providing feedback and imposing consequences).

Methods: A mixed-method design was used. In depth-interviews (n = 3) were conducted with chains' head office managers, gaining insight into control measures. Survey (n = 372) research was conducted to measure liquor store owners' perceptions of implementation. Mystery shop (n = 387) research was conducted to measure compliance of store owners with the LCA. Survey and mystery shopping data was linked (n = 179) for the indicated perceived risk of inspection.

Results: The interviews indicated that control measures differ across chains in comprehensiveness and degree of implementation, survey results showed corresponding differences across the chains. Linked results showed that liquor store owners who perceive a very high risk of inspection, showed higher ID requesting rates (chain 2 and 3: 93% and 99%) and compliance rates (chain 2 and 3: 77% and 86%), respectively. This effect may be amplified by a set of measures (e.g., by implementing age verification systems, increasing training, monitoring performances and/or imposing consequences) and could result in higher ID request rates (chain 1: 54% versus chain 2 and 3: both 95%) and compliance rates (chain 1: 35% versus chain 2 and 3: both 80%).

Conclusion: A comprehensive and systematic implementation of specific combinations of control measures in all four domains resulted in high compliance rates up to 80%. Nevertheless, the expectation is that this effect can only be attained when complemented by external government enforcement efforts.

Introduction

Several studies have concluded that the extent to which alcohol is available for young people influences their use and related health impacts, and that access to alcohol can be reduced by setting age limits (Babor, Caetano, & Casswell, 2010; Everitt & Jones, 2002; Huckle & Parker, 2014; Kypri et al., 2006; Paschall, Grube, & Kypri, 2009; Wagenaar & Toomey, 2002; Wagenaar, 1993). The effectiveness of age limits depends, however, on the degree to which they are complied with (Babor et al., 2010; Reynolds, Holder, & Gruenewald, 1997). The Dutch liquor store (off license) sector showed a compliance rate of 61.8% in 2016 (Roodbeen & Schelleman-Offermans, 2016). Although above the national average compliance rate of 35.8% for all alcohol sellers (on and off premise), still over 38.2% of the 17-year-old mystery shoppers could buy alcohol at liquor stores (Roodbeen & Schelleman-Offermans, 2016). This high non-compliance is especially a concern since only liquor stores are allowed to sell spirits (drinks concentrated with > 15% pure alcohol) in the off-premise sector in the Netherlands (Rijksoverheid, 2014).

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Dutch legislation and the liquor store sector in context

According to the Dutch Licensing and Catering Act (DLCA), vendors are prohibited to sell alcohol to minors, and are obliged to determine the age of the potential buyer (if the buyer is not unmistakably over 18 years of age) by requesting a formal identification document (ID) (Rijksoverheid, 2014). In January 2013, the enforcement for the sale of alcohol was decentralized to local municipalities, and in January 2014, the legal age limit for the sale and purchases of all alcoholic beverages was increased from 16 to 18 years (Rijksoverheid, 2014). These changes were accompanied by a substantial increase of attention in politics and the media regarding underage alcohol availability and triggered liquor store chains to voluntarily formulate self-regulated age limit control measures. Regarding the enforcement of age limits, the DLCA does not specify any statutory or mandatory requirements regarding the enforcement of age limits. This means that the responsibility for implementation and enforcement of age limit control measures are left with vendors. The setting of statutory drinking age limits cannot be considered self-regulation in the strict sense of the word, i.e. voluntary regulation by societal parties and stakeholders (such as the industry). The Dutch government, however, has decentralized enforcement of this law as a municipal task (each council is obliged to create an enforcement plan), and has put responsibility for proper execution of the ban with the sellers of alcoholic drinks (and to a small degree to juvenile individuals). Self-regulation here means that the central government has only set objectives and does not prescribe specific procedures for observing these limits for sellers, leaving proper execution to the discretion of parties in the field.

From a broad perspective, literature on self-regulation focusing on tobacco, alcohol and the ultra-processed food and drinks industries show that there is no evidence for the effectiveness or safety of self-regulation (Anderson, Chisholm, & Fuhr, 2009; Moodie et al., 2013; Sharma, Teret, & Brownell, 2010). Furthermore, focusing on the alcohol market, the development or promotion of a (new/existing) voluntary code or other form of self-regulation is used to reduce political pressure (Mosher, 2012; Savell, Fooks, & Gilmore, 2015), regarding happy hours (Van Hoof, Noordenburg, & Jong, 2008), advertisement (Hope, 2006; Jackson, Hastings, Wheeler, Eadie, & Mackintosh, 2000; Smith, Cukier, & Jernigan, 2014), marketing campaigns (Casswell & Thamarangsi, 2009; Committee, 2010; Mosher, 2012; Munro, Wever, & de, 2009; Noel, Babor, & Robaina, 2017) and alcohol health warning labels (Mathews, Thorn, & Giorgi, 2013). In addition, the alcohol market is known to argue that their own self-regulation is working well or is working better than formal regulation (Committee, 2010; Fogarty & Chapman, 2012; Munro & Wever, 2009; Nelson, 2010), arguing that existing regulation is satisfactory (Committee, 2010; Hope, 2006), of more extensive than necessary (Committee, 2010; Jernigan, 2012). Because of this, a critical assessment and evaluation of these self-regulated measures is important, since strict control on age limits may conflict with economic interests.

Liquor store chains and age limit control measures; the present study

Off-premise alcohol in the Netherlands is sold by liquor stores, cafeterias (snack bars and/or small diners), supermarkets, convenience/night shops and home delivery outlets. Only liquor stores are allowed to sell spirits (> 15% proof) off-premise (Rijksoverheid, 2014). In 2016, 2442 liquor store permits were issued allowing the sale of spirits ("VDN (VDN (Vereniging Drankenhandel Nederland). (n.d.), 2018). Approximately 30% of all liquor stores are chain-organized. Dutch liquor store chains consist of *affiliated liquor stores* (liquor stores owned by the chain) and/or *franchise liquor stores* (liquor stores owned by the liquor store owner). One of the differences between the two are the legal consequences chains can impose on store managers and employees. For instance, within a franchise collaboration, the chains can only impose on store owners, not employees. In an affiliated collaboration, both parties (the store manager and employees) work for the chain and agree to possible consequences in their contract. From 2012 onward, all stores affiliated with the trade organization VDN, together with the Dutch supermarket affiliation (CBL), agreed on a voluntary code of conduct to request a valid and original ID for all individuals appearing younger than 25 years (Roodbeen, Schelleman-Offermans, & Lemmens, 2016). Furthermore, all affiliates committed themselves to a systematic, four-step approach on age verification in the purchasing process, which aims to increase compliance: 1) age estimation, 2) request for a valid ID for those estimated up to 25 years of age, 3) review the ID, and 4) decide whether to sell the product, or not. In addition to these collective measures, liquor store chains have individually implemented age limit control measures, aiming to self-regulate age verification to increase compliance.

Four types of policy domains indicated by the Dutch Food and Product Safety Authority (NVWA) are, when addressed systematically, important for achieving high compliance rates (Hermans, Peeters, & Beerepoot, 2009). The first one is *capturing processes in age verification*, and involves the systematic, four-step approach on age verification in the purchasing process. Previous research has shown that requesting ID increases compliance (Roodbeen, Lie, & Schelleman-Offermans, 2013; Van Hoof, Roodbeen, Krokké, Gosselt, & Schelleman-Offermans, 2015). Furthermore, the supportive usage of age verification systems (AVSs), calculating and confirming whether the customer reached the legal purchase age, significantly increases the odds for compliance (Roodbeen et al., 2016; Van Hoof, Gosselt, & de Jong, 2010). Logically, this measure should be implemented as a start. Secondly, *instructing staff* could possibly increase compliance. For instance, responsible beverage service training, designed to reduce disorder and alcohol related harm, have shown potential (Brennan, Moore, Byrne, & Murphy, 2011; Scherer, Fell, Thomas, & Voas, 2015; Shapiro & Kazemi, 2017). Presumably, the training and/or instruction of off-premise alcohol vendors can have a similar positive effect on compliance. The instruction of staff can only be properly executed when processes in age verification are captured and implemented in the organization, therefore, instructions should be sequential to the first measure. Thirdly, *monitoring performance/giving feedback* could be important to achieve high levels of compliance because of its ability to change and improve unwanted outcomes (Alvero, Bucklin, & Austin, 2001; Grube, DeJong, DeJong, Lipperman-Kreda, & Krevor, 2018; Roscoe, Fisher, Glover, & Volkert, 2006; Rothengatter, 1991; Van Hoof, Gosselt, Baas, & De Jong, 2012). Performance feedback is successfully used in a variety of organizational settings (e.g., alcohol establishments, university hockey teams, electric utility industries, textile factories). A similar positive effect on compliance in the liquor store chain organization structure could be expected (Alvero et al., 2001; Grube et al., 2018; Roscoe et al., 2006; Rothengatter, 1991; Van Hoof et al., 2012). Monitoring performance/giving feedback is only feasible if employees are instructed properly and age verification processes are in order. Lastly, regulations and laws seem to be ineffective when they are not enforced (Reynolds et al., 1997). Therefore, in addition to monitoring and feedback, *imposing consequences* based on non-compliance with the age limit is needed to achieve high compliance rates.

In this study, differences are investigated between liquor store chains in their style of self-regulation and how that affects compliance with legal requirements concerning alcohol sales to minors. Control measures are analyzed in four regulatory domains, followed by the perceived implementation at shop floor level and an evaluation on compliance with the alcohol age limit.

Methods

A mixed-method design was used. In-depth interviews were conducted with managers of the liquor store chains for gathering insights into control measures. Using surveys, liquor store owners were asked about the implementation of their chain's control measures. Mystery