

## TOURISM RESILIENCE: NAVIGATING SUSTAINABILITY & MARKETING STRATEGIES IN THE TURBULENT WORLD OF ALCOHOL

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### Abstract

This research explores the global crisis of alcohol overconsumption, profoundly affecting society and tourism development. The study focuses on the social, psychological, economic, and professional repercussions of excessive drinking, impacting individuals and tourism worldwide. Using non-probability and purposive random sampling, data from millennials were collected and analyzed using various statistical methods, including HTMT analysis, Cronbach's alpha test, and structural equation modelling. The findings highlight significant adverse effects, including domestic conflicts, health issues, financial instability, and occupational challenges such as high absenteeism and reduced productivity. Preventive interventions are shown to mitigate these consequences moderately, benefiting society, business, and tourism growth. The outcome also aligns with social disorganization, strain, and sustainability theories in the social sciences, and tourism managers must implement responsible service practices, public awareness campaigns, and sustainable policies to mitigate the social and economic impacts of alcohol overconsumption. A holistic approach integrating these considerations is vital for fostering a responsible and sustainable tourism industry.

**Keywords:** Alcoholic beverages; Millennials; Overconsumption; Tourism development

## RESILIÊNCIA DO TURISMO: NAVEGANDO PELA SUSTENTABILIDADE E PELAS ESTRATÉGIAS DE MARKETING NO TURBULENTO MUNDO DO ÁLCOOL

### Resumo

Esta pesquisa explora a crise global do consumo excessivo de álcool, que afeta profundamente a sociedade e o desenvolvimento do turismo. O estudo enfatiza as repercussões sociais, psicológicas, econômicas e profissionais do consumo excessivo, impactando indivíduos e o turismo em escala global. Utilizando amostragem não probabilística e aleatória intencional, os dados foram coletados de millennials e analisados por meio de vários métodos estatísticos, como a análise HTMT, o teste alfa de Cronbach e a modelagem de equações estruturais. Os resultados destacam efeitos adversos significativos, incluindo conflitos domésticos, problemas de saúde, instabilidade financeira e desafios ocupacionais, como o elevado absenteísmo e a queda da produtividade. Intervenções preventivas demonstraram mitigar moderadamente essas consequências, beneficiando a sociedade, os negócios e o crescimento do turismo. Os resultados também estão alinhados com as teorias da desorganização social, da tensão e da sustentabilidade das ciências sociais. Gerentes de turismo devem implementar práticas de serviço responsável, campanhas de conscientização pública e políticas sustentáveis para mitigar os impactos sociais e econômicos decorrentes do consumo excessivo de álcool. Uma abordagem holística que integre essas considerações é essencial para promover uma indústria de turismo responsável e sustentável.

**Palavras-chave:** Bebidas alcoólicas; Geração Y; Consumo excessivo; Desenvolvimento do turismo.

## RESILIENCIA DEL TURISMO: NAVEGANDO POR LA SOSTENIBILIDAD Y LAS ESTRATEGIAS DE MARKETING EN EL TURBULENTO MUNDO DEL ALCOHOL

### Resumen

Esta investigación analiza la crisis global del consumo excesivo de alcohol, que afecta profundamente a la sociedad y al desarrollo del turismo. El estudio se centra en las repercusiones sociales, psicológicas, económicas y profesionales del consumo excesivo, que impactan a los individuos y al turismo a nivel mundial. Utilizando un muestreo no probabilístico y aleatorio intencional, se recopilaron datos de millennials que fueron analizados mediante varios métodos estadísticos, como el análisis HTMT, la prueba alfa de Cronbach y la modelización de ecuaciones estructurales. Los resultados destacan efectos adversos significativos, incluidos conflictos domésticos, problemas de salud, inestabilidad financiera y desafíos laborales, como el alto ausentismo y la disminución de la productividad. Las intervenciones preventivas demostraron mitigar moderadamente estas consecuencias, beneficiando a la sociedad, a los negocios y al crecimiento del turismo. Los resultados también se alinean con las teorías de la desorganización social, la tensión y la sostenibilidad de las ciencias sociales. Los gestores turísticos deben implementar prácticas de servicio responsable, campañas de concienciación pública y políticas sostenibles para mitigar los impactos sociales y económicos del consumo excesivo de alcohol. Un enfoque holístico que integre estas consideraciones es vital para fomentar una industria turística responsable y sostenible.

**Palabras clave:** Bebidas alcohólicas; Generación Y; Consumo excesivo; Desarrollo del turismo.

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## 1 INTRODUCTION

Excessive consumption of alcoholic beverages poses a significant threat to public health on a global scale, contributing to numerous non-communicable diseases and behavioural disorders. This behaviour is linked to various serious consequences, including fractured family dynamics, increased crime rates, higher instances of accidents, economic instability within families, mental health issues, and a heightened risk of poverty (Dasgupta *et al.*, 2018). Every year, 3 million (30 lakh) alcohol-related deaths are reported globally (Alcohol, 2022). Every year, approximately 54000 deaths are caused by the consumption of alcohol in Latin America (Arab *et al.*, 2020). The overconsumption of alcoholic beverages has wide-ranging impacts on societal, psychological, economic, and professional aspects. It strains public resources, affects decision-making and mental health, increases economic costs, and challenges industries like tourism to balance customer satisfaction with responsible practices. Addressing these impacts is essential for promoting societal well-being, mental health, financial stability, and ethical standards in professional settings (Anderson, 2021).

The impact of overconsumption of alcoholic beverages on the sustainability and growth of tourism is multifaceted and significant. Excessive alcohol consumption among tourists leads to adverse societal effects such as increased crime rates, public disturbances, and strained community relations, ultimately compromising the safety and appeal of tourism destinations (Khamis *et al.*, 2022). Moreover, alcohol-related incidents tarnish the reputation of a destination, leading to decreased visitor satisfaction and potential loss of repeat business. From a sustainability perspective, overconsumption contributes to environmental issues such as littering and pollution, particularly in areas with nightlife and heavy alcohol consumption. Additionally, alcohol-related health problems strain local healthcare resources, impacting both residents and tourists (Park & Kim, 2020). Therefore, addressing and mitigating the impacts of overconsumption is crucial for ensuring the long-term sustainability and positive growth of the tourism and alcohol industry.

The impact of alcohol consumption by millennials on tourism is profound, influencing their travel preferences toward experiential and culturally immersive experiences that often revolve around local beverages (Kim & Park, 2020). This demographic's interest in alcohol-related activities, such as brewery/distillery/vineyard tours and beer/distilled alcoholic beverage/wine tastings, has led to the emergence of alcohol-centric tourism niches, affecting destination selection and driving economic growth through increased tourism revenue, job creation, and entrepreneurship (Kumar *et al.*, 2018). However, this trend also necessitates a balance between promotion and responsible consumption, highlighting the importance of collaborative efforts among tourism stakeholders, regulatory bodies, and communities to ensure sustainable tourism practices and cultural sensitivity (Roxas *et al.*, 2020).

Balancing alcohol consumption with tourism growth is essential to fostering sustainable, responsible tourism practices. While alcohol-related experiences enhance

tourists' cultural immersion and contribute to local economies, excessive consumption leads to negative impacts such as public disturbances, health issues, and cultural insensitivity. Therefore, promoting a culture of moderation, responsible marketing, and awareness about the social and cultural significance of alcohol is crucial. Collaborative efforts among governments, tourism stakeholders, hospitality providers, and communities are needed to implement policies and initiatives that encourage responsible alcohol consumption, ensure visitor safety, and preserve the integrity of destinations. This balanced approach not only safeguards the well-being of tourists and locals but also contributes to the long-term sustainability and attractiveness of tourism destinations.

This study addresses a gap in the literature by introducing four new variables into the discussion of millennials: social, psychological, economic, and professional implications of consuming alcoholic beverages. Given this setting, we set out to analyze the

- Impact of overconsumption of alcoholic beverages on societal, psychological, economic, and professional factors
- Specific factors that are impacted by the consumption of alcoholic beverages
- Preventive measures to mitigate the impact of overconsumption.

To advance the growth of the tourism industry, the study employs a sophisticated higher-order structural equation model using data collected from respondents. This research significantly contributes to the existing literature by shedding light on the social, psychological, financial, and occupational impacts of millennials' heavy alcohol consumption on the tourism sector. Understanding these impacts is crucial for developing preventive strategies that are essential for steering society toward progress and safeguarding future generations from the negative repercussions of excessive alcohol consumption in the tourism context.

Given the myriad consequences associated with heavy drinking among millennials, the authors propose a novel four-tier conceptual model explicitly tailored to the tourism industry. As far as the authors are aware, no such comprehensive model has been previously proposed. Additionally, the study examines the potential impact of preventive measures that could mitigate the adverse effects of millennials' excessive alcohol consumption on the tourism sector.

## 2 THEORETICAL BACKGROUND

In developing societies, alcoholism presents a significant public health challenge, particularly among millennials, leading to chronic health issues and behavioural problems. Excessive alcohol consumption is linked to acute intoxication, strained relationships, accidents causing injuries, and increased crime rates (Ramanan & Singh, 2016; Gopikrishnan *et al.*, 2020). Moreover, even moderate alcohol use leads to various health issues like epilepsy, anxiety, addiction, and chronic diseases such as diabetes and high blood pressure, along with communicable diseases like

pulmonary tuberculosis. Millennials' emotional and psychological well-being is profoundly affected by their heavy alcohol consumption, often used as a coping mechanism for modern life pressures. This behaviour also contributes to economic disparities, household instability, reduced earnings, and limited professional growth.

## 2.1 Societal influence

As millennials mature, their social circles, especially friends and peers, play a crucial role (Jackson *et al.*, 2014). Compared to parental influences, peer influence significantly impacts alcohol consumption among millennials (Schwinn & Schinke, 2014; Zehe & Colder, 2014). Research emphasizes the role of peers in the risks associated with excessive alcohol use among millennials, citing peer pressure (Studer *et al.*, 2014), alcohol norms among peers (Varvil-Weld *et al.*, 2014), and exposure to peers who use substances (Patrick *et al.*, 2013). Transitioning to college, joining organizations, and leaving home often lead to increased alcohol consumption due to more permissive drinking norms in social settings (Scott-Sheldon *et al.*, 2008; White *et al.*, 2006). Media exposure, including advertising, product placement, films, television, and social media, also influences drinking norms. Despite regulations, alcohol marketing impacts beliefs about drinking positively, fostering environments where alcohol consumption is socially accepted and encouraged (McKee *et al.*, 2011; Koordeman *et al.*, 2012). This contributes to overconsumption of alcohol (Tanski *et al.*, 2015).

The overconsumption of alcohol among millennials in tourism contexts is influenced by various cultural and societal factors (Berkman *et al.*, 2000; Krieger, 2001). Living conditions, neighbourhood environments, and easy access to alcohol also contribute significantly to alcohol consumption (Bernstein *et al.*, 2007; Shimotsu *et al.*, 2013). Exposure to violence in childhood and observing peers' alcohol use in the neighbourhood are additional factors driving increased alcohol consumption among millennials in tourism settings (Trucco *et al.*, 2014; Chung *et al.*, 2014). Considering the preceding discussion on the societal effects of excessive alcohol consumption, we propose the following hypothesis for testing:

*H<sub>1</sub>: Societal implications have a direct positive effect on the overconsumption of alcoholic beverages.*

## 2.2 Psychological factors

Gu and Ming (2020) discovered in their research that social discrimination and unfair treatment contribute to increased alcohol consumption, with millennials turning to alcohol as a coping mechanism for stress. The link between discrimination, anxiety, and risky health behaviour is well-documented (Dawson, 2000; Paradies, 2006). The stress and coping framework, frequently used to explain the impact of discrimination on health, posits that individuals may use alcohol to manage stressors in their lives (Pascoe & Smart Richman, 2009). Discrimination acts as a significant social stressor, triggering physiological responses like elevated blood pressure and stress hormone release, leading to

increased alcohol consumption (Pascoe & Smart Richman, 2009). Studies have linked self-reported unfair treatment to higher alcohol use among millennials (Chae *et al.*, 2008; Gee *et al.*, 2007; Yoo *et al.*, 2010).

Additionally, Sukumaran *et al.* (2020) identified a connection between alcohol consumption and mental health disorders, which disrupt societal harmony and peace. Early initiation of alcohol use, especially during adolescence, increases the risk of developing alcohol-related disorders, as this crucial period involves psychological and social adjustments that support later social integration. Early alcohol use disrupts these processes, leading to escalated and more frequent alcohol consumption patterns. This is particularly relevant in the context of tourism development, where stressors and social dynamics influence alcohol consumption behaviours and mental health outcomes among tourists and local communities alike. Given the foregoing discussion of the psychological impact of excessive alcohol consumption, we propose the following hypothesis for testing:

*H<sub>2</sub>: Psychological implications have a direct positive effect on the overconsumption of alcoholic beverages.*

## 2.3 Economic factors

Sudhinaraset *et al.* (2016) observed that socio-economic status, encompassing education, income, and occupation, reflects individuals' well-being in society. High-income millennials generally experience better health outcomes and consume alcohol less frequently, albeit in larger quantities when they do drink. Conversely, those with lower socio-economic status tend to consume more alcohol overall (Huckle *et al.*, 2010).

However, Gu and Ming (2020) found that high-income millennials actually consume more alcohol compared to individuals with lower incomes and education levels. In the context of the tourism industry, the overconsumption of alcohol is often associated with younger, lower-income, less-educated, single, and employed rural residents. In contrast, lighter alcohol consumption is linked to higher-income, educated, single, urban residents. Excessive alcohol use among millennials contributes to economic instability and poverty, with absenteeism from work being a notable factor (Gopikrishnan *et al.*, 2020). The interplay between education, income, and alcohol consumption is significant, especially in tourism settings where economic disparities and lifestyle choices impact individuals' alcohol consumption behaviours and, consequently, their well-being and financial stability. Therefore, based on the discussion on economic factors, we propose the following hypothesis:

*H<sub>3</sub>: Economic implications have a direct positive effect on the overconsumption of alcoholic beverages.*

## 2.4 Professional factors

The excessive consumption of alcoholic beverages has notable repercussions on professional life within the tourism sector. It reduces employee productivity, increases the likelihood of workplace accidents, contributes to high

absenteeism, and results in elevated turnover. Additionally, it leads to a decline in earning capacity, hinders career advancement, and prompts premature retirement among workers (Matzopoulos *et al.*, 2014).

In contrast, Gu and Ming's (2020) study found that employment status did not significantly affect alcohol consumption among millennials in the tourism sector. However, the study highlighted the significant impact of income on alcohol consumption behaviours. Higher-income millennials tended to consume more alcohol compared to their lower-income counterparts.

These findings underscore the multifaceted impact of alcohol consumption on the tourism industry, affecting not just individual employees' professional trajectories but also broader productivity, safety, and workforce stability within tourism-related businesses. Therefore, the following hypothesis is proposed to determine the impact of overconsumption of alcoholic beverages on professional factors among millennials:

*H<sub>4</sub>: Professional implications have a direct positive effect on the overconsumption of alcoholic beverages.*

## 2.5 Preventive measures

According to research by Sudhinaraset *et al.* (2016), millennials who spend more time with their parents and other family members tend to put off abusing alcohol. However, millennials with strong ties to their cultural traditions refrain from alcohol use (MacArthur *et al.*, 2020). For instance, millennials in Asia have greater rates of abstinence from alcohol consumption (Cook *et al.*, 2015) because they uphold cultural values, family values, and social norms. It is interesting to note that millennials are less likely to drink alcohol if they have a strong bond with their family or share their family's anti-drinking views (Hahm *et al.*, 2003). It has been discovered that social norms alone are insufficient to alter drinking behaviour. Still, education and legal restrictions

on its sale and use have a considerable impact on millennials' propensity for excessive consumption. Offering tailored feedback while addressing the individual's motivation for drinking lessened the harmful effects of binge drinking (Patrick *et al.*, 2013). In light of the debate, it is suggested that the following hypothesis be tested:

*H<sub>5</sub>: Preventive measures have a direct positive effect on the overconsumption of alcoholic beverages among the millennials.*

## 2.6 Body of Scientific Knowledge

The overconsumption of alcohol among millennials is a multifaceted issue underpinned by various theoretical perspectives that explicate its societal, psychological, economic, and professional dimensions. Social learning theory (Bandura, 2007) highlights the influence of peer norms, media, and permissive environments and tourism settings in normalizing alcohol use. Psychological stress and coping frameworks link stressors such as discrimination and mental health challenges to maladaptive behaviours like alcohol use, with early initiation during adolescence exacerbating long-term consumption patterns. Economic factors are examined through the social gradient in health theory (Clark, 2020), revealing a dual phenomenon where both lower socio-economic stress and higher disposable income contribute to alcohol use. The job demands-resources model (Bakker & Demerouti, 2017) links excessive alcohol consumption to professional consequences, such as burnout and reduced productivity, underscoring the interplay between work conditions and personal health. Preventive strategies rooted in the theories of planned behaviour and social control (Ajzen, 2000) emphasize the mitigating role of familial ties, cultural adherence, and educational interventions in curbing risky behaviours. This synthesis provides a robust conceptual framework for understanding alcohol overconsumption among millennials.

**Table 1.** Summary of main findings

Factors	Main Findings	Authors
<b>Societal Influence</b>	Peer influence significantly impacts alcohol consumption among millennials Transitioning to college and joining organizations increase alcohol use Media exposure fosters permissive drinking norms. Living conditions and neighbourhood environments contribute to alcohol use Childhood exposure to violence and peer substance use drive higher alcohol consumption.	Tanski <i>et al.</i> (2015), Jackson <i>et al.</i> (2014), Schwinn & Schinke (2014), Zehe & Colder (2014), Studer <i>et al.</i> (2014), Chung <i>et al.</i> (2014), Varvil-Weld <i>et al.</i> (2014), Trucco <i>et al.</i> (2014), Patrick <i>et al.</i> (2013), Shimotsu <i>et al.</i> (2013), Koordeman <i>et al.</i> (2012), McKee <i>et al.</i> (2011), Bernstein <i>et al.</i> (2007), Krieger (2001), Berkman <i>et al.</i> (2000).
<b>Psychological Factors</b>	Social discrimination and unfair treatment lead to increased alcohol consumption Stress and coping frameworks explain alcohol use as a stress management tool. Early initiation of alcohol use disrupts social and psychological adjustments. Alcohol consumption correlates with mental health disorders in tourism settings.	Gu & Ming (2020), Sukumaran <i>et al.</i> (2020), Yoo <i>et al.</i> (2010), Pascoe & Smart Richman (2009), Chae <i>et al.</i> (2008), Gee <i>et al.</i> (2007), Paradies (2006), Dawson (2000).
<b>Economic Factors</b>	Alcohol consumption patterns vary by socio-economic status and income. High-income millennials consume alcohol less frequently but in larger quantities. Excessive alcohol use among low-income millennials contributes to economic instability and absenteeism. Economic disparities significantly impact alcohol use in tourism settings.	Gu & Ming (2020), Gopikrishnan <i>et al.</i> (2020), Sudhinaraset <i>et al.</i> (2016), Huckle <i>et al.</i> (2010).
<b>Professional Factors</b>	Alcohol consumption leads to reduced productivity, workplace accidents, absenteeism, and high turnover rates.	Gu & Ming (2020), Matzopoulos <i>et al.</i> (2014).

Factors	Main Findings	Authors
	Negative effects include hindered career growth and premature retirement. Income levels influence alcohol use Higher-income millennials consuming more.	
Preventive Measures	Strong family bonds and cultural values reduce alcohol consumption. Millennials in Asia exhibit higher rates of abstinence due to cultural and family norms. Education and legal restrictions effectively curb alcohol abuse. Tailored feedback reduces binge drinking behaviour.	MacArthur et al. (2020), Sudhinaraset et al. (2016), Cook et al. (2015), Patrick et al. (2013), Hahm et al. (2003).

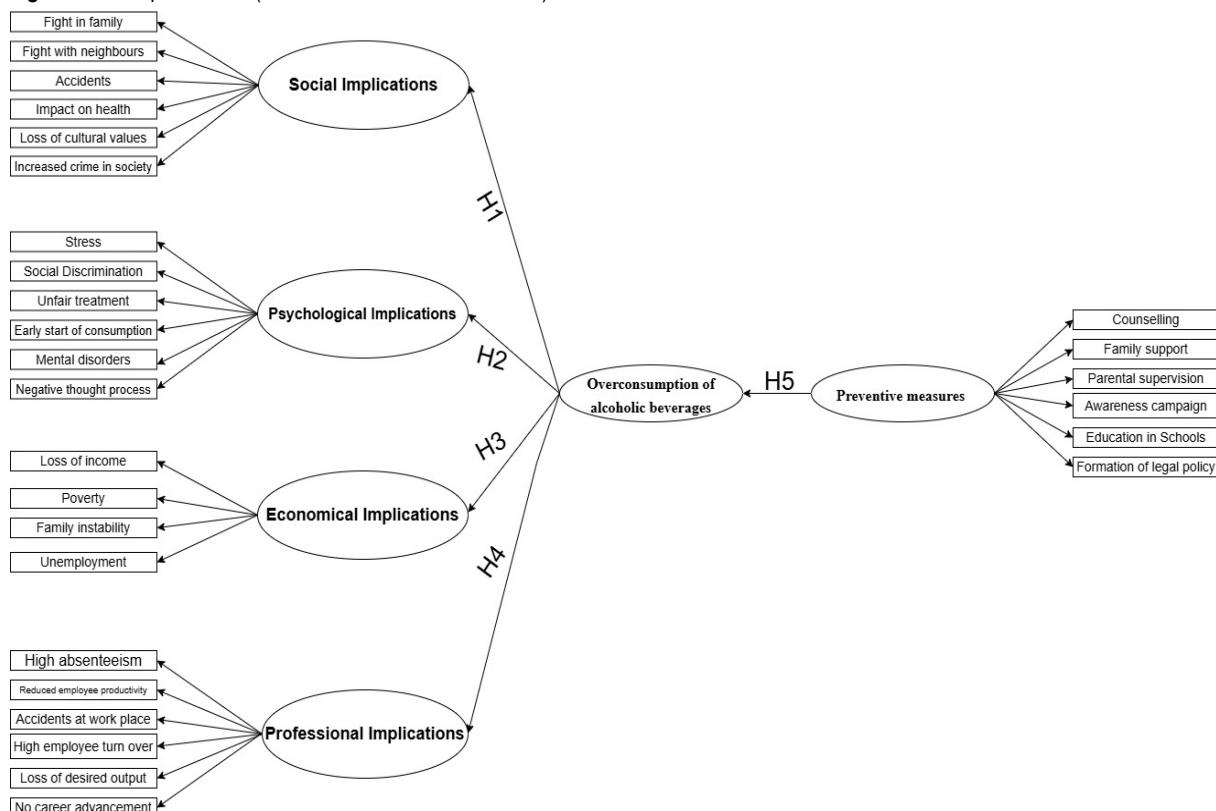
## 2.7 Conceptual framework

This study explores the adverse outcomes associated with the overconsumption of alcoholic beverages among millennials, considering indicators of socio-economic well-being such as social, psychological, financial, and occupational status. Authors including Ramanan & Singh (2016), Gopikrishnan et al. (2020), Pedersen et al. (2017), Teunissen et al. (2016), and Nesi et al. (2017) have quantified adverse societal effects, such as increased crime, domestic violence, and conflicts with neighbours and strangers. Mental health effects, as quantified by MacArthur et al. (2020) and Gu & Ming (2020), include stress, social discrimination, early alcohol initiation, mental disorders, and negative thought processes. Economic repercussions,

highlighted by Sudhinaraset et al. (2016) and Gopikrishnan et al. (2020), include decreased productivity, lost income, poverty, family instability, stagnant wages, and joblessness. Professional consequences, as assessed by Matzopoulos et al. (2014), encompass absenteeism, productivity loss, workplace accidents, employee turnover, unrealized goals, and career stagnation.

The study proposes a conceptual framework (Figure 1) that considers these ramifications and plans to investigate the effects of preventive strategies, including counselling, family support, parental monitoring, education, awareness campaigns, and law. The research has utilized confirmatory factor analysis and structural equation modelling (SEM) for model fit assessment.

**Figure 1.** Conceptual model (Source: Author's own elaboration)



## 3 RESEARCH METHODOLOGY

### 3.1 Research design

The respondents in the present study were selected using non-probability purposive sampling. The rationale

behind selecting such techniques is that research can identify the respondents who are drinking alcoholic beverages in excessive quantity or respondents are exposed to such an environment where excessive consumption of alcoholic beverages is prevalent (Etikan, 2016). The minimal path coefficient was set at 0.2, and a 1% level of significance was

used to calculate the sample size using the “inverse square root method” described by Kock & Hadaya (2018).

The questionnaire was distributed electronically to millennials in Delhi, India, in February 2024. These millennials were drinking alcoholic beverages in excessive amounts or were exposed to excessive drinking culture. The survey took about 15 minutes to complete, and 237 volunteers participated in this study. Before data collection began, the respondent was briefed on the research objective.

The participation of respondents was voluntary. Participant anonymity was ensured through a disclaimer on the questionnaire, which assured them that their individual responses would remain strictly confidential. Only aggregated data and collective opinions will be used to analyze results and formulate conclusions.

### 3.2 Instrument development

An intricate and delicate social phenomenon is the focus of this investigation. All measurement elements on the scales were taken directly from the literature, with only minor adjustments made to make them applicable to the current study. Overconsumption of alcoholic beverages has been linked to 22 adverse outcomes for millennials, as determined by a systematic review of the literature on the topic. Four categories were created to organize these 22 ramifications.

These factors include the social, psychological, financial, and occupational consequences. Arguments at home, conflicts with neighbours, traffic accidents, health problems, a decline in traditional values, and an uptick in criminal activity are all indicators of a societal problem (Ramanan & Singh, 2016; Gopikrishnan *et al.*, 2020; Pedersen *et al.*, 2017; Teunissen *et al.*, 2016; Nesi, 2017).

MacArthur *et al.* (2020) and Gu & Ming (2020) examined the mental health effects by measuring stress, social discrimination, unfair treatment in society, early initiation of alcohol intake, cognitive disorders, and negative thought processes. Overconsumption of alcoholic beverages has been linked to decreased workplace productivity, income loss, poverty, family discord, stagnant wages, and joblessness, according to research by Sudhiraraset *et al.* (2016) and Gopikrishnan *et al.* (2020).

Overconsumption of alcoholic beverages has been linked to several adverse professional outcomes, including increased absenteeism, decreased productivity, workplace accidents, employee turnover, lost productivity, and stagnation in one's career (Matzopoulos *et al.*, 2014).

Counselling, family assistance, parental supervision, instruction in schools/universities, awareness campaigning, and the establishment of appropriate legislative policy were also measured as preventative measures to lessen the harmful effects of excessive consumption. Insight into millennials' mental processes regarding the consequences of heavy drinking led to the formulation of 28 research questions.

A self-administered questionnaire was used to collect participants' responses. Respondents were asked to share their opinions using a 5-point Likert scale ranging from strongly disagree to agree strongly. Sauder *et al.* (2012) state that this scale is effective for gathering opinion-based data.

## 4 RESULTS AND ANALYSES

### 4.1 Reliability & Validity (Pilot Study)

Initial research was conducted to assess the questionnaire's reliability based on feedback from 30 millennials. Cronbach's alpha ( $\alpha$ ) for all the latent variables ranged from 0.90 to 0.92, indicating significant reliability and consistency among the questionnaire items. The 0.70 statistical significance threshold was exceeded in every category (Hair *et al.*, 2019). The values Cronbach's alpha ( $\alpha$ ) in the range of 0.90 to 0.92 are acceptable for instrument consistency (Raykov, 2023). The questionnaire's content validity was determined by the face validity method. Academic experts and industry professionals examined the results of the pilot study.

### 4.2 Demographic analysis

According to an analysis of the obtained data in Table 2, 71.3% of respondents were male. The vast majority of responders (93%) fell within the definition of the millennial population (Slepian *et al.*, 2024). In addition, Table 2 reveals that 100% of respondents have a source of income. At the same time, 100% of respondents are employed and have disposable income. In addition, the demographic analysis found that all respondents were educated, thereby enhancing the quality of the responses gathered for this study. The respondents' demographic profiles indicated that they were well-suited for the study.

Table 2. Demographic profile of respondents

Categ ories	Frequency	Percentage
<b>Gender</b>		
Male	169	71.3
Female	68	28.7
<b>Age</b>		
18-25 years	185	78.1
26-32 years	27	11.4
33-40 years	10	4.2
Above 40 years	15	6.3
<b>Education</b>		
Undergraduate	104	43.9
Graduate	75	31.6
Postgraduate	55	23.2
PhD and above	3	1.3
<b>Profession</b>		
Government sector	39	16.5
Private sector	62	26.2
Own business	21	8.9
Freelance	115	48.5
<b>Income per month</b>		
Below Rs 50000/-	176	74.3
Rs 50001- Rs100000	33	13.9
Rs 100001- Rs 150000	10	4.2
Above Rs 150000	18	7.6

### 4.3 Outlier and normality tests

Multivariate outliers are identified by computing the z-score for each variable. In this analysis, we used SPSS version 22 to observe univariate and multivariate outliers. All responses had z-scores between -2 and +2, but 19 significant multivariate outliers were identified after computing the Mahalanobis distance ( $D^2$ ). These outliers were removed from the dataset. Hence, only 218 responses were incorporated for further analysis. Further, the data set was tested for standard method variance (CMV) using Harman's single-factor analysis. The test outcome confirmed that no single factor is responsible for the covariance among the constructs. The first factor accounted for 41.27% of the total variance, below the 50% threshold (Podsakoff & Organ, 1986). In addition, the data set was examined for normality of the sample by computing the maximum skewness and kurtosis indices using SPSS 22.0 and AMOS 24.0 for all study variables. The maximum values of skewness and kurtosis were -0.06 and 2.28, respectively. The acceptable values of skewness and kurtosis are  $\pm 2$  and  $\pm 7$ , respectively, when utilizing SEM (Hair *et al.*, 2010). The values of both parameters are within the acceptable range, indicating that all items followed a normal distribution.

#### 4.4 Assessment of reflective measurement model (Convergent and Discriminant validity)

**Table 3 .**  
**Heterotrait-monotrait (HTMT) ratio of correlation for the full baseline model**

Variables	Social implication	Psychological implications	Economic implications	Professional implications
Social implications	x			
Psychological implications	0.62	x		
Economic implications	0.73	0.66	x	
Professional implications	0.74	0.73	0.86	x

Note- Liberal threshold level for HTMT ratios = 0.90 (Henseler *et al.*, 2014; Gold *et al.*, 2001)

#### 4.5 First-order CFA for the reflective measurement model

The initial step in evaluating a structural model is addressing collinearity issues. The VIF (Variation inflation factor) values for all predictor constructs were  $\leq 3.3$  (ranging from 1.3 to 3.3), and the tolerance levels ranged from 0.271 to 0.0440, both  $> 0.10$  and  $< 10$ , indicating that collinearity was not a problem in this study (Hair *et al.*, 2016).

Furthermore, only variables with loadings greater than 0.5 were retained. The proposed model (Figure 1) was assessed through Amos 24 in two stages. The fitness of the measurement model can be evaluated in several ways (Gaskin & Lim, 2016; Hair *et al.*, 2010; Kline, 2011). However, it would be wasteful to analyze each of these indices individually (Hair *et al.*, 2010). Parsimony-adjusted measurements, the root-mean-squared error approximation (RMSEA), the comparative fit index (CFI), the normed fit index (NFI), and the chi-squared test (CMIN/DF) were used to determine the model fit. The model fits the data well if the normalized CMIN/DF  $< 3$ , CFI  $> 0.95$ , NFI  $> 0.90$ , RMSEA  $< 0.06$ , and parsimony-adjusted  $< 3$  (Hu & Bentler, 1999).

The test results showed that the chi-square ( $\chi^2$ ) value was 216.55, the degree of freedom (DF) was 138, the p-value

The validity and reliability of the four reflective constructs in the framework (Figure 1) were evaluated using three criteria to ensure the measurement model's quality. Firstly, we examined convergent validity through indicator loadings and average variance extracted (AVE). Among the 28 indicators, 15 had loadings above the ideal threshold of 0.70, and all 28 exceeded the acceptable level of 0.40 (Hair *et al.*, 2016), as shown in Table 4.

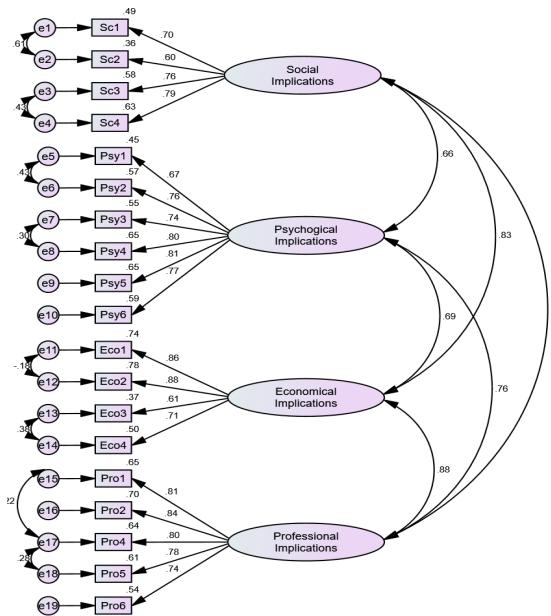
Additionally, for convergent validity, all constructs should have AVE values greater than 0.50 (Fornell & Larcker, 1981), and composite reliability (CR) should exceed 0.70, with CR values higher than AVE (Hair *et al.*, 2022). In our dataset, CR values exceeded 0.70, and AVE values supported convergent validity.

Secondly, we assessed internal consistency reliability using Cronbach's alpha. Table 4 shows that all Cronbach's alphas exceeded the 0.70 threshold, indicating satisfactory construct reliability (Hair *et al.*, 2019).

Finally, discriminant validity was evaluated using the heterotrait-monotrait ratio of correlations (HTMT) criterion recommended by Henseler *et al.* (2014) and Gold *et al.* (2001). Table 3 shows that all HTMT ratios for the latent variables were below 0.90, indicating good discriminant validity among the measured constructs.

was 0.000, the normalized CMIN/DF was 1.56, which is below the maximum of 5.0, the CFI was 0.972, which is higher than the acceptable limit of 0.95, the RMSEA was 0.05, which is less than the maximum cut-off value of 0.06, and the parsimony-adjusted measures were 0.80 which less than the acceptable limit of 3. These findings prove that the complete baseline measurement model has an excellent fit. (Figure 2 & Table 5).

**Figure 2.** Baseline reflective measurement model ( Source: SPSS Amos version 24)



**Table 4.**  
**Results for first order (Reflective) measurement model with factor loadings**

Variables Items	Factor loading	Cronbach's Alpha	CR	AVE	S	K	VIF
<i>Social implications</i>		.874	0.86	0.506			
Sc1 Overconsumption of alcoholic beverages leads to fights in the family	.637				-.735	-.526	3.271
Sc2 Overconsumption of alcoholic beverages leads to fights with neighbours	.928				-.287	-.934	2.965
Sc3 Overconsumption of alcoholic beverages leads to road accidents	.793				-1.508	1.814	3.056
Sc4 Overconsumption of alcoholic beverages leads to an impact on health	.764				-1.541	2.280	3.325
Sc5 Overconsumption of alcoholic beverages leads to loss of cultural values	.440				-.637	-.674	2.483
Sc6 Overconsumption of alcoholic beverages increases crime in society	.422				-.630	-.600	2.233
<i>Psychological implications</i>		.899	0.89	0.576			
Psy1 Overconsumption of alcoholic beverages causes stress	.731				-.251	-	2.571
Psy2 Overconsumption of alcoholic beverages causes mental disorder	.758				-.258	-.923	2.816
Psy3 Overconsumption of alcoholic beverages causes social discrimination	.708				-.291	-	2.636
Psy4 Overconsumption of alcoholic beverages causes unfair treatment	.680				-.325	-.928	2.997
Psy5 Overconsumption of alcoholic beverages causes early start of consumption	.634				-.365	-.792	2.536
Psy6 Overconsumption of alcoholic beverages causes a negative thought process	.614				-.589	-.534	2.590
<i>Economic implications</i>		.862	0.85	0.593			
Eco1 Overconsumption of alcoholic beverages brings loss of income	.633				-.939	-.107	3.166
Eco2 Overconsumption of alcoholic beverages brings family instability	.690				-.829	-.322	3.370
Eco3 Overconsumption of alcoholic beverages brings unemployment	.574				-.259	-.842	2.217
Eco4 Overconsumption of alcoholic beverages brings poverty	.709				-.155	-.955	2.644
<i>Professional implications</i>		.872	0.88	0.558			
Pro1 Excessive consumption causes high absenteeism of employees	.653				-.584	-.539	2.880
Pro2 Excessive consumption causes a reduction in employee productivity	.646				-.511	-.632	3.100

Pro3	Excessive consumption causes a high turnover of employees	.416			-.051	-.935	1.364
Pro4	Excessive consumption causes work-related accidents	.625			-.802	-.279	3.065
Pro5	Excessive consumption causes loss of desired output	.668			-.558	-.520	3.086
Pro6	Excessive consumption stops career advancement	.634			-.447	-.750	2.356
	<i>Preventive measures</i>		0.922	0.917	0.647		
OVC 1	Emotional factors like counselling	.826			-0.473	-	2.678
OVC 2	Family support	.850			-0.731	-	3.321
OVC 3	Parental supervision	.872			-0.508	-	3.106
OVC 4	Awareness campaign	.846			-0.393	-	2.810
OVC 5	Education in schools/ university	.862			-0.677	-	3.014
OVC 6	Formation of appropriate legal policy as a deterrent	.838			-0.515	-0.658	2.598

Note- S= Skewness, K = Kurtosis, VIF = Variation inflation factor, CR = Composite reliability, AVE = Average variance extracted, VIF= Variation inflation factor

**Table 5**  
Summary of extracted baseline reflective measurement model (Figure 2)

Absolute fit indices	Value	Interpretation	Cut-off Criteria & Interpretation		
			Terrible	Acceptable	Excellent
$\chi^2$	216.55	--	--	--	--
DF	138	--	--	--	--
P- Value	.000	--	--	--	--
Normalised CMIN/DF	1.56	Excellent	> 5	> 3	> 1
CFI	0.97	Excellent	<0.90	<0.95	>0.95
NFI	0.92	Acceptable	<0.90	<0.95	>0.95
RMSEA	0.05	Excellent	>0.08	>0.06	<0.06
PNFI	0.80	Excellent	--	--	< 3

Note -  $\chi^2$ = Chi-Square, DF = Degree of freedom, CFI = Comparative fit index, NFI= Normed fit index, RMSEA = Root mean square error approximation, PNFI = Parsimony normed fit index (Hu & Bentler, 1999)

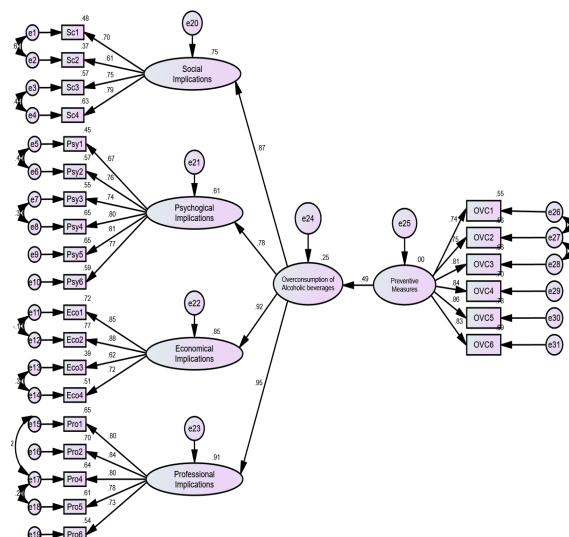
#### 4.6 Higher-order CFA for the reflective measurement model

Higher-order CFA is used to validate variables acquired from first-order CFA of collected data and hypotheses developed from a thorough examination of the available literature on the varied consequences of heavy alcohol use among millennials. AMOS 24 continues the data analysis at a deeper level. Goodness-of-fit indices for the five latent variables revealed were compared to the cut-off values proposed by Gaskin and Lim (2016), Hair *et al.* (2010), and Kline (2011).

The test results showed that the chi-square ( $\chi^2$ ) statistic is 381.71, with a degree of freedom (DF) of 260 and a significance (p) value of 0.000, normed chi-square was ( $\chi^2/DF$ ) = 1.47, CFI = 0.96, NFI = 0.91, RMSEA = 0.04 and Parsimony-adjusted measures= 0.86 with a 95% confidence level. In conclusion, the criteria for model fit were judged excellent across the board for the 25 factors that mattered regarding the various implications of excessive consumption of alcoholic beverages and the impact of preventive measures on them (Table 6).

**Table 6**  
Summary of extracted higher-order reflective measurement model (Figure 3)

**Figure 3** Higher-order reflective measurement model ( Source: SPSS Amos version 24)



Absolute fit indices	Value	Interpretation	Cut-off Criteria & Interpretation		
			Terrible	Acceptable	Excellent
$\chi^2$	381.71	--	--	--	--
DF	260	--	--	--	--
P- Value	.000	--	--	--	<0.05
Normalised CMIN/DF	1.46	Excellent	> 5	> 3	> 1
CFI	0.96	Excellent	<0.9	<0.95	>0.95
NFI	0.91	Acceptable	<0.9	<0.95	>0.95
RMSEA	0.04	Excellent	>0.08	>0.06	<0.06
PNFI	0.86	Excellent	--	--	< 3

Note -  $\chi^2$ = Chi-Square, DF = Degree of freedom, CFI = Comparative fit index, NFI= Normed fit index, RMSEA = Root mean square error approximation, PNFI = Parsimony normed fit index (Hu & Bentler, 1999)

#### 4.7 Hypothesis testing

Five different hypotheses were created. Each hypothesis was reflected by a path between two latent variables in the structural model. The statistical significance and sizes of the path coefficients were analyzed to test the structural model and the hypotheses. The analysis based on this evaluation allows the researcher to confirm or refute each hypothesis and get insight into the relationship between the latent variables (Huber *et al.*, 2007). A degree of association between two latent variables is established by calculating the path coefficient.

The researcher has checked the path coefficients, algebraic signs, sizes, and significance of the link between two latent variables. To account for a specific effect within the model, the path coefficients must be greater than 0.100 and statistically significant at 0.05 (Huber *et al.*, 2007). Each endogenous latent variable's coefficient of determination ( $R^2$ ) was analyzed to identify patterns in their relationships. A latent variable's  $R^2$  is calculated by comparing its explained variance to its overall variance. Values of  $R^2$  above 0.67 are considered strong, and between 0.333 and 0.666 are regarded as moderate, whereas values less than 0.19 are considered weak (Nitzl & Chin, 2017).

There are statistically significant correlations between these independent variables in the structural model: implications of overconsumption and social influences ( $\beta=0.869$ ,  $p=0.001$ ), implications and psychological influences ( $\beta=0.775$ ,  $p=0.001$ ), implications and economic influences

( $\beta=0.929$ ,  $p=0.001$ ), implications and professional motives ( $\beta=0.951$ ,  $p=0.001$ ) and methods of recovery and implications of overconsumption ( $\beta=0.495$ ,  $p=0.001$ ). In addition, Table 7 shows a significant and robust correlation between the four consequences that come from excessive alcohol intake among millennials.

Further, the coefficient of determination ( $R^2$ ) values were also determined for each latent variable in the structural model (Figure 3). The social implications had an  $R^2$  of .75, meaning it explained 75% of the variance in the social implications construct related to heavy drinking among millennials, with the remaining 25% attributable to error. After that, the  $R^2$  for psychological implications was 0.613, indicating that this variable accounted for 61% of the total variation. Economic implications also had a high  $R^2$  of 0.852, indicating that the variable explained 85% of the total variance. Likewise, the  $R^2$  value for professional implications was 0.911, indicating that the variable accounted for 91% of the construct's total variance, with excessive millennial alcohol consumption as a contributing factor. Finally, the  $R^2$  value for preventive measures was 0.245, which means that the variable accounted for 24% of the total variance of the construct. Consequently, all the hypotheses formulated in the conceptual model (Figure 1) are supported at the  $p<0.05$  significance level, with  $t \geq 1.96$  (Table 7). It indicates that the overconsumption of alcoholic beverages causes profound implications (societal, psychological, economic and professional).

**Table 7.**  
**Testing of hypotheses 1-5**

		Hypothesis	Path Coefficient $t(\beta)$	Coefficient $t$ of determination ( $R^2$ )	t-Value	p-Value	Remark	
H <sub>1</sub>	Societal implication	<--	Overconsumption of alcoholic beverages	0.869	.753	9.818	0.001*	Supported
H <sub>2</sub>	Psychological implication	<--	Overconsumption of alcoholic beverages	0.775	.613	8.845	0.001*	Supported
H <sub>3</sub>	Economic implication	<--	Overconsumption of alcoholic beverages	0.929	.852	8.800	0.001*	Supported
H <sub>4</sub>	Professional implication	<--	Overconsumption of alcoholic beverages	0.951	.911	9.818	0.001*	Supported
H <sub>5</sub>	Implication of Overconsumption of alcoholic beverages	<--	Preventive measures	0.495	.245	6.072	0.001*	Supported

Note \* = P-value < 0.001

#### 4.8 Preventive measures and their impact on the implications arising due to excessive consumption of alcohol

Preventive measures and all other contract-independent factors are strongly associated. The values of the coefficient of determination ( $R^2$ ) between the preventive measures and independent variables, such as counselling, family support, parental supervision, education in schools or universities, awareness campaigns, and creation of appropriate legal policy, ranged from 0.77 to 0.86 (Figure 3), indicating a strong relationship between the construct. Path coefficient ( $\beta$ ) was estimated to determine how all preventive actions would affect excessive alcohol use. The value of the path coefficient ( $\beta$ ) was 0.495 (Table 7). The value indicates that taking preventative actions has a moderate impact on the consequences of excessive alcohol intake. The result was supported by a significance level of  $p<0.05$ ,  $t \geq 1.96$ .

### 5 CONCLUSION

#### 5.1 Concluding discussion

Millennials' heavy drinking has far-reaching consequences, as evidenced by this study's findings. These consequences include adverse effects on millennials' personal and professional lives as well as on society as a whole. In addition, the findings support the validity of earlier research on alcohol abuse.

The results show that excessive drinking leads to domestic disputes, disputes with neighbours, traffic mishaps, and health decline. The high value of the coefficient of determination ( $R^2$ ) also suggested that excessive drinking has a substantial, positive impact on the social repercussions that come from millennials' heavy alcohol use (Moore *et al.*, 2013). Previous studies by Ramanan and Singh (2016), Gopikrishnan *et al.* (2020), Pedersen *et al.* (2017), Teunissen *et al.* (2016), and Nesi *et al.* (2017) corroborate this finding.

Human psychology is a multifaceted phenomenon that has far-reaching effects. Overconsumption of alcoholic beverages has a modest effect on the concept that includes stress, social discrimination, unfair treatment in society, mental disorders, and negative thought processes, as shown by the results of the present study. As shown by the  $R^2$  value, overconsumption has a moderate positive effect on millennials' psyches (Moore *et al.*, 2013). Previous studies (MacArthur *et al.*, 2020; Gu & Ming, 2020) corroborate these findings.

The millennial generation's social and economic health is reflected in the circumstances of its members. However, this research showed that excessive consumption also lowers income. It has been established that excessive drinking of alcoholic beverages leads to a decline in financial stability and joblessness. There is a strong and robust relationship between the unobserved and observable variables, as indicated by the high  $R^2$  value (Moore *et al.*, 2013). This finding supports the findings of previous research by Sudhinaraset *et al.* (2016) and Gopikrishnan *et al.* (2020).

It is interesting to note that excessive alcohol consumption has the most decisive influence (as indicated by the value of  $R^2$ ) on professional implications like high

absenteeism, decreased productivity, workplace accidents, lost output, and stagnant careers. This finding agrees with those of a previous study by Matzopoulos *et al.* (2014) but conflicts with the results of a later study by Gu and Ming (2020).

It is also intriguing to note that preventive actions like counselling, family support, parental supervision, education in schools or universities, awareness campaigns, and the development of suitable legal policy have a weak to moderate impact (as indicated by the value of  $R^2$  between the implications and preventive actions) on the adverse consequences that result from millennials' excessive alcohol consumption (Moore *et al.*, 2013). Previous investigations (MacArthur *et al.*, 2020; Sudhinaraset *et al.*, 2016; Williams *et al.*, 2015; Patrick *et al.*, 2013) have supported the findings.

#### 5.2 Theoretical implications

The current study is the first one to propose a model based on the implications that arise from excessive consumption of alcoholic beverages among millennials. The present research supports the hypothesized model (Figure 1). The overconsumption of alcoholic beverages carries profound theoretical implications across various domains, notably impacting tourism, sustainability, societal dynamics, psychological well-being, economic stability, and professional environments. Societally, excessive alcohol consumption in tourism destinations leads to heightened social tensions, public disturbances, and strains on local resources, eroding the quality of life for both residents and visitors. Psychologically, it may contribute to increased risk-taking behaviour, impaired decision-making, and mental health challenges, affecting individuals' ability to engage responsibly in tourism activities. Economically, overconsumption strains healthcare systems, increases public safety expenditures, and deters sustainable development efforts, thereby hindering long-term economic prosperity in tourism-dependent regions. Professionally, alcohol-related incidents damage the reputation of tourism businesses, leading to decreased consumer trust, reduced investments, and weakened job opportunities, highlighting the intricate interplay between alcohol consumption and the broader fabric of tourism sustainability. The above outcome aligns with Social Disorganization Theory (Shaw & McKay, 1943), which examines how excessive alcohol consumption creates social tensions and public disturbances in tourism destinations. It also connects with Strain Theory (Agnew & Moon), suggesting that societal pressures and economic disparities drive individuals toward overconsumption, exacerbating psychological and economic challenges. Furthermore, Sustainability Theory (Chang *et al.*, 2017) aligns with this by emphasizing the need for balanced resource use and responsible behaviour to ensure long-term tourism viability.

#### 5.3 Practical implications

The overconsumption of alcoholic beverages poses significant managerial implications across multiple dimensions within the tourism industry, impacting societal, psychological, economic, and professional aspects. From a

societal perspective, managers face the challenge of maintaining a positive destination image and ensuring the safety and well-being of both tourists and local communities amidst concerns of excessive alcohol consumption. This necessitates implementing effective alcohol management strategies, including responsible service practices, public awareness campaigns, and collaborations with local authorities, to mitigate negative social impacts. Psychologically, managers must consider the potential impact of alcohol on tourists' behaviour and decision-making, striving to create environments that promote responsible consumption and minimize risks associated with alcohol-related incidents. Economically, the overconsumption of alcohol leads to increased healthcare costs, public safety expenditures, and reputational damage to tourism destinations, highlighting the need for sustainable alcohol policies that balance economic gains with social responsibility.

Excessive alcohol consumption has been linked to an increase in crime rates in tourism-intensive areas. It is associated with public disorder, violence, and other criminal activities. Alcohol-related crimes such as assaults on tourists, thefts, and vandalism tend to escalate in destinations known for nightlife and party tourism. It poses a threat to the safety and well-being of both locals and visitors and also tarnishes the destination's reputation, deterring future tourists (Bromley & Nelson, 2002). Destinations with a history of alcohol-related violence experience a decline in tourist arrivals (McNaughton, 2006). Furthermore, the economic implications of such a reputation are severe, resulting in reduced tourist footfall that impacts local businesses, employment, and the destination image. Destinations that fail to address these issues risk being rejected by responsible and family-oriented travellers, leading to long-term negative consequences for the tourism sector (Karakuş & Kalay, 2017).

Moreover, professional implications arise as tourism businesses must navigate regulatory frameworks, uphold ethical standards, and invest in staff training to address alcohol-related challenges effectively. Ultimately, effective managerial responses to alcohol overconsumption in tourism involve a holistic approach that integrates societal, psychological, economic, and professional considerations to foster a sustainable and responsible tourism industry.

#### 5.4 Scope of further research

The future scope of research on the impact of overconsumption of alcoholic beverages on tourism and sustainability is vast and multifaceted. One key area of focus could be the development and evaluation of innovative alcohol management strategies in tourism destinations, aiming to balance promoting responsible consumption with preserving social, environmental, and economic sustainability. This could involve exploring the effectiveness of interventions such as alcohol-free tourism initiatives, public awareness campaigns, technology-driven monitoring systems, and collaborative partnerships between industry stakeholders and local communities. Psychologically, there is scope for research into the long-term effects of alcohol consumption on tourists' decision-making processes, risk

perceptions, and overall well-being, particularly in the context of sustainable tourism practices and responsible travel behaviours. Understanding how alcohol consumption influences tourists' experiences, satisfaction levels, and behavioural intentions could inform the design of tailored interventions and educational programs to promote healthier, more mindful tourism practices.

From an economic perspective, future research could delve into the broader economic impacts of alcohol overconsumption on tourism-dependent economies, including assessments of healthcare costs, law enforcement expenditures, productivity losses, and the overall economic resilience of destinations. This could involve conducting comprehensive cost-benefit analyses, exploring alternative revenue streams, and identifying strategies to minimize the financial burdens associated with alcohol-related challenges. Professionally, there is scope for research on the role of industry regulations, corporate social responsibility practices, and workforce training programs in mitigating the adverse effects of alcohol overconsumption within the tourism and hospitality sectors. Examining best practices, industry benchmarks, and cross-sector collaborations can provide valuable insights into fostering a culture of responsible service, ethical leadership, and sustainable business practices in alcohol-related contexts.

#### 5.5 Research limitations

Research on the impact of overconsumption of alcoholic beverages on tourism and sustainability faces several limitations that may affect the generalizability and depth of findings. Firstly, there are challenges in accurately measuring and quantifying the extent of alcohol consumption and its effects, as self-reporting methods could be subjective and prone to biases. This may lead to discrepancies in data reliability and validity, potentially impacting the robustness of research outcomes. Reliability can be enhanced by collecting observational data on alcohol consumption among millennials. Secondly, the multifaceted nature of the impact of alcohol overconsumption necessitates interdisciplinary approaches, which can be complex to implement due to differing methodologies, theoretical frameworks, and research paradigms across disciplines. Integrating societal, psychological, economic, and professional perspectives requires collaboration among experts from diverse fields, presenting logistical and coordination challenges that may limit the scope and depth of research endeavours. Thirdly, ethical considerations surrounding research on alcohol consumption, particularly in vulnerable populations or sensitive contexts, may impose constraints on data collection, participant recruitment, and the dissemination of research findings. Privacy concerns, informed consent procedures, and potential stigmatization of participants could influence the research process and outcomes, leading to data gaps or biases.

Moreover, longitudinal studies tracking the long-term effects of alcohol overconsumption on tourism and sustainability are often resource-intensive and time-consuming, making it challenging to comprehensively capture dynamic changes and trends over extended periods. This limitation could affect the ability to draw definitive

conclusions about causal relationships or predictive models related to alcohol's impact on diverse dimensions of society and industry. Fourth, contextual factors such as cultural norms, regulatory environments, and geographic variations may influence the generalizability of research findings across regions or tourist destinations. The proposed model could address cultural differences by incorporating specific variables such as local drinking norms, region-specific regulatory frameworks, and societal attitudes toward alcohol. It could be achieved through interviews with focus groups in diverse regions to understand cultural nuances. Additionally, comparative studies across different destinations could highlight variations in millennials' behaviour regarding consumption patterns. Finally, incorporating non-hegemonic academic perspectives such as decolonial, indigenous, or feminist frameworks could offer nuanced insights into how power dynamics, cultural autonomy, and gender roles influence alcohol consumption in tourism.

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### Ethics statement

Data was obtained from respondents after disclosing the intent of the research, and a promise was made to them that their responses would not ever be disclosed. The research has been carried out in accordance with the COPE guidelines.

### CRediT author statement

Term	Definition	Author 1	2	3
Conceptualization	Ideas; formulation or evolution of overarching research goals and aims	x	x	
Methodology	Development or design of methodology; creation of models			x
Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components			x
Validation	Verification, whether as a part of the activity or separate, of the overall replication/ reproducibility of results/experiments and other research outputs	x	x	x
Formal analysis	Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data	x	x	x
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection	x	x	
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools	x	x	
Data Curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse	x	x	x
Writing - Original Draft	Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)	x	x	x
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Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/ data presentation	x		x

Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team			x
Project administration	Management and coordination responsibility for the research activity planning and execution	x	x	
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