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Factors Influencing the Purchase Intention of Brazilian Artisanal Cheeses

A Study Based on Consumer Planned Behavior and Perceived Risk

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RESUMO

Os queijos artesanais são alimentos locais de crescente interesse por parte dos consumidores. No entanto, o conhecimento empírico sobre os fatores que influenciam a intenção de compra de alimentos locais ainda é limitado. Assim, este estudo teve como objetivo analisar, à luz da teoria do comportamento planejado e da teoria do risco percebido, os fatores determinantes da intenção de compra de consumidores locais em relação a dois importantes queijos artesanais brasileiros. Além disso, verificamos se a atitude atua como variável mediadora na relação entre risco percebido e intenção de compra. Coletamos os dados presencialmente por meio de um questionário impresso aplicado a uma amostra de 343 consumidores. A análise dos dados foi realizada por meio da análise de correspondência simples e modelagem de equações estruturais com estimação por mínimos quadrados. Os resultados indicam que a atitude, as normas sociais, o controle comportamental percebido e o risco percebido influenciam positivamente a intenção de compra, explicando 41% da variância. O risco percebido influencia positivamente a atitude, que, por sua vez, atua como um mediador parcial viável da relação entre risco percebido e intenção de compra. Identificamos que os consumidores locais de ambos os queijos artesanais não adquirem os produtos por uma obrigação pessoal de valorização do produto ou do produtor, mas sim porque mantêm relações próximas com os produtores, realizando compras diretas frequentes.

Palavras-chave: Teoria do Comportamento Planejado, Risco Percebido, Intenção de Compra, Alimento Local, Queijos Artesanais.

ABSTRACT

Artisanal cheeses are local foods of growing interest from consumers. However, empirical knowledge of the factors that influence the purchase intention of local foods is still limited. Thus, this study aimed to analyze, through the lenses of the theory of perceived behavior and the theory of perceived risk, the factors determining the purchase intention of local consumers for these two important Brazilian artisanal cheeses. Additionally, we verified whether attitude is a mediating variable of the relationship between perceived risk and purchase intention. We collected data in person using a printed questionnaire from a sample of 343 consumers. The data were analyzed using simple correspondence analysis and structural equation modeling with least-squares estimation. The results show that attitude, social norms, perceived behavioral control, and perceived risk positively affect purchase intention, explaining 41% of the variance. Perceived risk positively influences attitude, and this operates as a viable partial mediator of the relationship between perceived risk and purchase intention. We identified that local consumers of both artisanal cheeses do not purchase the products due to a personal obligation to value the product or its producer but because they maintain close relationships with the producers, consisting of frequent direct purchases from the producers.

Keywords Theory of Planned Behavior, Perceived Risk, Purchase Intention, Local Food, Artisan Cheeses.

1. INTRODUCTION

Local food has gained attention in recent years from academics and public policymakers in several countries (Enthoven & Van den Broeck, 2021). Due to its worldwide consumption trend, increased government support for local food production (Marques *et al*., 2022), to its geographic proximity, which leads to closer relationships with consumers and consequent gains in perceived value (Eriksen, 2013), and for being a relevant factor for tourists both to meet the needs for new dining experiences and a functional component in travel and to sustain life and safety during travel (H. Zhang *et al*., 2018).

Geographic proximity refers to food production, distribution, and consumption in a geographically bounded location such as a region, area, or community. Closer relationships refer to direct relationships between producers, distributors, and consumers through direct sales and short marketing channels (Eriksen, 2013). The close relationship between producers and consumers enables greater interaction and exchange of information about the origin and quality of the products, representing something like an informal certification (Cruz & Menasche, 2014). Perceived values come from characteristics such as place of origin, traceability, authenticity, freshness, and quality that differentiate local foods from other foods (Eriksen, 2013). For example, artisan cheeses are defined as being from a specific region, produced primarily by hand, in limited quantities, using as little mechanization as possible, and generally using milk from their own herd (Wang *et al*., 2015), and based on their characteristics are classified as local foods. For consumers, artisan cheeses are seen as a form of personal and historical attachment to their region of origin (Rytkönen *et al*., 2018).

Regarding the study of local food consumer behavior, the classical constructs (cognitive attitude, perceived behavioral control, and social norms) of the Theory of Planned Behavior (TPB) are determinants in explaining the intention to purchase local food (Lorenz *et al*., 2015). The intention to purchase is influenced by perceived behavioral control, attitude toward that behavior, and social norms (Ajzen, 1991). Recently, the TBP incorporated into the classic constructs two new constructs (affective attitude and personal norms), which also proved to be determinants of the intention to purchase local food (Lorenz *et al*., 2015). It is common to see in studies from the perspective of TPB seeking to associate perceived risk with purchase intention (Chen, 2017; H. Zhang *et al*., 2018; Y. Zhang *et al*., 2018; Yarimoglu *et al*., 2019; Mohammadian *et al*., 2023).

Despite advances in the literature related to the factors that influence consumer intention to purchase local foods, empirical knowledge about the consumption of these foods is still limited (Young, 2022), which implies the need for additional studies, especially on specific local foods (Feldmann & Hamm, 2015), such as artisan cheeses. Social and personal norms are also rarely addressed in studies on local food consumption behavior, and there is a need to validate contextual factors, such as attitudes, norms, and availability of local foods, to obtain more meaningful findings on the perceptions and preferences of local food consumers (Feldmann & Hamm, 2015). Furthermore, new research on perceived risk in other food consumption contexts can contribute to identifying mediating and moderating variables of the relationships between consumers' risk perceptions, attitudes, and purchasing intentions (Choi *et al*., 2013).

Considering that artisanal cheeses are products that face barriers in their marketing because they are not always able to meet all sanitary standards in informal sales locations (Roldan & Revillion, 2019), new studies on perceived risk can verify whether the perception of risk interferes with the intention to purchase the product. In the context of local food consumption, only H. Zhang *et al*. (2018) and Mohammadian *et al*. (2023) conducted research under the TPB constructs and the perceived risk, but they focused on tourist consumers and not local consumers. It turns out that if we consider the geographic proximity and the closer relationships of local consumers with local food (Eriksen, 2013), it is likely that the perception of risk in relation to local foods is different between tourists and local consumers.

This study focuses on two types of Brazilian artisanal cheeses considered important local foods from two different regions of the country – Serra da Canastra cheese and Cabacinha cheese. The first product comes from the Serra da Canastra region, in the state of Minas Gerais, considered the largest producer of artisanal cheeses in Brazil. The Serra da Canastra region is one of the seven traditional microregions to produce artisanal cheeses in Minas Gerais (Kamimura *et al*., 2019). Although the production of this cheese is certified with a seal of origin from the Canastra Cheese Producers Association (*Associação dos Produtores de Queijo Canastra - APROCAN*) and addressed, mainly, at tourists at various points of sale in Brazil, local consumers of Canastra cheese do not usually buy it at points of sale intended for to tourists, due to aspects such as price and size of the cheese.

The second product originates in the central region of Brazil, which covers cities in the states of Goiás and Mato Grosso. This product does not yet have certification of origin, and the municipality of Santa Rita do Araguaia, in the state of Goiás, is the municipality that most uses cabacinha cheese for tourists, making the product available at points of sale located along the

BR-364 Highway that passes through the city. Local consumers of Cabacinha cheese buy the product directly from the producer at a lower price than that charged to tourist consumers.

Our objective is to analyze, through the lenses of the theory of perceived behavior and the theory of perceived risk, the factors determining the purchase intention of local consumers for these two important Brazilian artisanal cheeses. Additionally, as carried out in previous studies, we seek to verify whether attitude is a mediating variable (mitigating or enhancing) of the relationship between perceived risk and purchase intention, since it is an assessment that favors (or not) purchasing behavior (Ajzen, 1991), depending on the positive or negative judgment that people have about a certain objective (good or service) (Ostrom, 1969).

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1. Theory of Planned Behavior

The Theory of Planned Behavior (TPB) consists of investigating behavior and its drivers in social psychology. Behavior is determined by the intention to perform that behavior, and intention is influenced by perceived behavioral control, attitudes toward that behavior, and social norms (Ajzen, 1991).

The constructs of cognitive attitude perceived behavioral control, and social norms (linked to the TPB) significantly influence consumers' food choices (Nardi *et al*., 2019), including in more specific food contexts, such as local foods (Lorenz *et al*., 2015). Moreover, the constructs affective attitude and personal norms (linked to the extended TPB) are also identified as determinants in explaining purchase intention for local foods (Lorenz *et al*., 2015). Cognitive attitude refers to a judgment (positive or negative) of people about a certain object, expressed by thought and/or verbal statement (Ostrom, 1969). In turn, affective attitude refers to feelings and emotions (positive or negative) at the level of people's thoughts and/or verbal statements about the same object (Ostrom, 1969).

In general, attitude is an important predictor of local food consumer behavior because it is a predisposition to purchase action (Feldmann & Hamm, 2015). This indicates that the level of knowledge of local food consumers is related to the strength of their attitudes toward seeking more information about their food choices. These consumers develop stronger attitudes and thus become more interested in and seek more information about their food (Feldmann & Hamm, 2015). Arvola *et al*. (2008) satisfactorily combined indicators of affective attitude and cognitive attitude into a single construct called global attitude (second-order construct) into the TPB model to investigate predicting organic food purchase intention.

Social norms (or subjective norms) refer to social pressure perceived by the individual to perform or not perform a behavior, being considered a shared belief about how the individual acts based on the expectations of the social group to which they belong, with sanctions and rewards defined and externally imposed by this group (Ajzen, 1991). On the other hand, personal norms refer to a person's views about what is right or wrong (Schwartz, 1977) and are described as actively experienced feelings of moral obligation that directly influence behavior and focus on evaluations of acts in terms of moral value to the individual (Wenzig & Gruchmann, 2018). Little research investigates personal and social norms in the field of local food consumption, since purchasing these foods is less socially desirable than purchasing organic or fair-trade products. Local foods are more common across social classes and are subject to individual definitions (Feldmann & Hamm, 2015).

Perceived behavioral control refers to an individual's perception of the ease or difficulty of performing a certain behavior given their past experiences and contextual conditions related to their behavior (Ajzen, 1991). Contextual factors, such as limited product availability in the market, often influence the intention to perform a certain behavior (Wenzig & Gruchmann, 2018). A lack of availability and the challenge of identifying local products are recognized as major barriers (Feldmann & Hamm, 2015).

Many studies have indicated that TPB constructs significantly influence consumers' food choices. Lorenz *et al*. (2015) show that the purchasing behavior of German pork consumers is influenced by normative and affective behavioral determinants, and that the identification and authenticity of a region has a significant influence on personal norms and affective and cognitive attitude). In this study, personal norms and affective attitude were considered, respectively, strong direct and indirect determinants of purchase intention.

Similar results were found by H. Zhang *et al*. (2018) and Mohammadian *et al*. (2023) who identify a positive and significant influence of the three classic TPB constructs (cognitive attitude, perceived behavioral control, and social norms) on the purchase intention of tourist consumers for local foods. Additionally, H. Zhang *et al*. (2018) also shows that purchase intention is directly influenced by perceived benefit and perceived risk and indirectly influenced by subjective knowledge.

In the study by Kumar and Smith (2018) on the purchase intention of North American consumers of local foods,

attitude and social norms had a significant effect on purchase intention, while perceived behavioral control did not show a significant effect. In the study on preferences in German local food consumers' purchase intentions, Wenzig and Gruchmann (2018) combine TPB constructs with normative constructs (personal and social norms), and identify that personal norms have the largest effect on purchase intention among all other constructs. Based on the research described, we formulate the following research hypotheses:

H1: Consumers' attitude positively influences their intention to purchase artisan cheeses.

H2: Consumers' social norms positively influence their intention to purchase artisanal cheeses.

H3: Consumers' personal norms positively influence their intention to purchase artisan cheeses.

H4: Consumers' perceived behavioral control positively influences their intention to purchase artisan cheese.

2.2. Theory of Perceived Risk

Consumer behavior involves risk because any action performed by a consumer will produce consequences that he or she cannot accurately foresee, and some of these consequences may not be pleasant (Bauer, 1960). People's perceptions toward risk are closely related to the dangerous situations in which they find themselves, with risk being the equivalent to the expected number of fatalities (Slovic, 1987). In this aspect, risk is quantifiable and predictable, and can influence an individual's behavior (Slovic, 1987). However, perceived risk is a multidimensional construct because it includes hygiene risk, health risk, and environmental risk (Choi *et al*., 2013).

Perceived risk is the probability of negative, unfavorable, and harmful consequences for consumers themselves and society caused by the purchase and consumption of a specific product (Choi *et al*., 2013). Therefore, perceived risk refers to the expectation of a likely loss (Chen, 2017) and a negative consequence of a decision (Y. Zhang *et al*., 2018). Traditionally, perceived risk has a negative influence on the purchase intention of consumers, as seen in the cases of street foods in residential areas (Choi *et al*., 2013), the consumption of local food by tourists when traveling (H. Zhang *et al*., 2018; Mohammadian *et al*, 2023), and Chinese consumers' purchase intention for genetically modified foods [11]. Based on these results, we formulate the next Hypothesis of this research.

H5: Consumers' perceived risk negatively influences their intention to purchase artisan cheeses.

Some studies have also operated on attitude as a mediating variable between perceived risk and purchase intention, but the results have not found consensus. In Choi *et al*. (2013), attitude receives a negative effect from perceived risk and has a positive effect on purchase intention; in H. Zhang *et al*. (2018) and Y. Zhang *et al*. (2018), perceived risk does not significantly affect attitude, but it positively and significantly affects purchase intention; already, in Yarimoglu *et al*. (2019), attitude receives a positive effect from perceived risk and positively affects purchase intention. Given these controversies, in this study we will test whether attitude mediates the relationship between perceived risk and purchase intention, formulating the last research hypothesis, which combined with H1 indicates mediation shown in Figure 1.

H6: Consumers' perceived risk negatively influences their favorable attitude toward artisan cheeses.

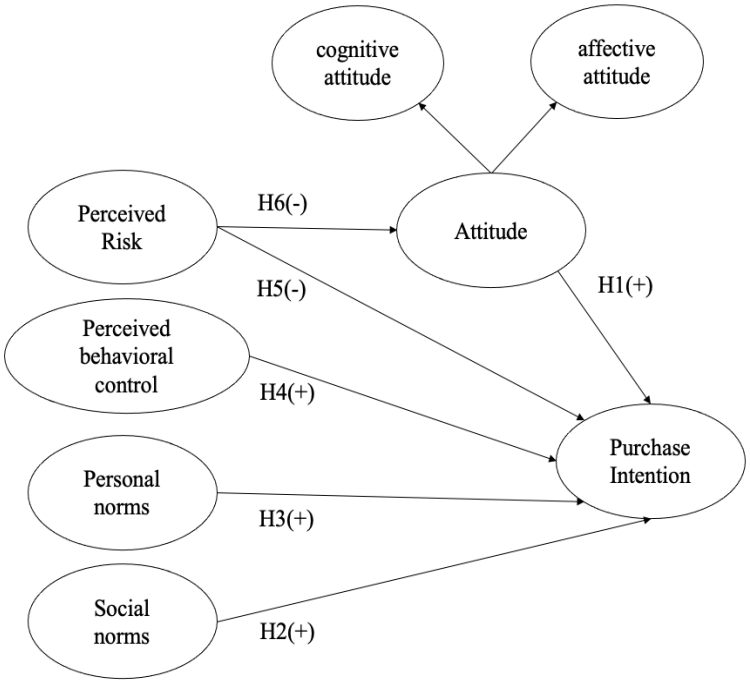

Figure 1 – Theoretical model of the research.

Source: Prepared by the authors.

3. METHOD

This study was carried out after obtaining approval from the Research Ethics Committee of the Federal University of Goiás in Brazil (CEP-UFG) (register number: 4.853.335). The Ethics Committee requires participants to sign the Informed Consent Form explaining the research protocols. Participants were informed about the confidentiality of personal identification and the use of data for publishing the research. Informed consent was obtained from all individual participants included in the study.

3.1. Research Universe and Sample

The consumers chosen to participate in the study were located near the production and sale of artisan cheeses. For the choice of artisan cheeses, the criteria were the presence and absence of geographical indication, and canastra and cabacinha cheeses were selected, respectively. This criterion for choosing cheeses makes it possible to increase the representativeness of the results of this research to consumers of other cheeses. The points of sale chosen were not those intended for tourists, but those where local consumers buy cheeses, including direct purchases from the producer, street markets, and small markets, since the focus of the article was to research the purchase intention of local consumers, not tourists.

3.2. Data Collect

Data were collected in person from September 2021 to March 2022 using a printed questionnaire. As filter criteria to answer the questionnaire, the respondent had to be over 18 years old and necessarily be a consumer of Cabacinha cheese located in the states of Goiás and Mato Grosso or a consumer of Canastra cheese located in the state of Minas Gerais. The questionnaire was the same in both locations, changing only the name of the cheese.

After data collection, the answers were systematized in a Microsoft Excel® spreadsheet, and from the 364 questionnaires applied, 21 were discarded for blank or duplicate answers, resulting in 343 validated questionnaires: 162 for Cabacinha cheese and 181 for Canastra cheese. The sample exceeded the minimum quantity of 160 respondents, and to establish the required number of respondents, a minimum of five respondents for each variable of the scale (5 × 32 items) was taken into consideration [27]. The sample had a statistical power of 95%, calculated using the G*Power software, which indicated the need for 138 valid responses by adopting the following analysis criteria: F-test, multiple linear regression (fixed model, R^2 deviation from zero), effect size (f^2) = 0.15, and alpha = 0.05.

The questionnaire included questions related to consumption habits (purchase frequency and place of purchase), sociodemographic factors, all constructs

of the Theory of Planned Behavior (cognitive and affective attitude, personal and social norms, perceived behavioral control, and purchase intention), and the construct perceived risk. TPB and perceived risk constructs were measured using a 5-point Likert scale.

The items for the TPB constructs were adopted from research that validated the constructs for a specific local food context (Lorenz *et al*., 2015), the perceived risk construct was applied considering the hygiene risk dimension, raised in an exploratory study for perceived risk (Yeung & Morris, 2001) and validated in an empirical study that measured the effects of risk on street food consumer purchase intention (Choi *et al*., 2013). The items from the health risk and environmental risk dimensions were eliminated after confirmatory factor analysis.

3.3. Data Analysis

a) Association between purchase frequency and place of purchase

Initially, we sought to identify the association between the categorical variables frequency of purchase and place of purchase. To do this, we use simple correspondence analysis, from data crossings in contingency tables, and then create a conceptual map. This was performed in three stages: the first was the analysis of the chi-square test (X^2), the second was the analysis of the adjusted standardized residuals, and the third stage was the analysis of the perceptual map. This analysis was performed using IBM SPSS® software, 28th edition.

The result of the X^2 test performed between the categorical variables showed a significant association ($p < 0.05$), confirming a pattern of dependence between these variables and showing that the association between them does not occur randomly. In the analysis of standardized residuals, we verified the combinations of each category of a variable with each category of another variable, resulting in an adjusted standardized residual with a positive value greater than 1.96, a result considered satisfactory [29]. From the perceptual map generated, we identified the relationship between the categorical variables frequency of purchase and place of purchase, arranged in rows and columns in the contingency table.

b) Verification of the relationship between the constructs

To verify the relationship between the constructs proposed we used the PLS-SEM (Structural Equation Modeling with least squares estimation) because it is indicated for Likert scales of attitude and field research with the nature of the data coming from human social relations (Bido & Da Silva, 2019). The software used to assist in the data analysis was the SmartPLS (v. 3.3.3), and the evaluation of the measurement model presented was performed in two stages: the first was the evaluation of the measurement model and the second stage was the evaluation of the structural model (Bido & Da Silva, 2019).

In the evaluation of the measurement model, we check the convergent and discriminant validity and reliability parameters presented by the constructs and their indicators (or items). In the evaluation of the constructs, the values highlighted on the diagonal of Table 1 represent the square root of the average variance extracted (AVE) and are greater than the correlations between the constructs, demonstrating discriminant validity. Composite reliability (CC) was guaranteed because all variables presented values greater than 0.7 (Bido & Da Silva, 2019).

AVE values greater than 0.5 demonstrate convergent validity, but this did not occur for the Cognitive Attitude and Perceived Behavioral Control constructs. However, we decided to keep the AVE of these constructs below 0.5, not eliminating indicators from them to maintain the maximum number of indicators in the model. This procedure does not harm content validity and is recommended in cases where the AVE is slightly below 0.5 (Bido & Da Silva, 2019).

Table 1

Correlation matrix between latent variables

	AA	CA	PBC	PI	PN	SN	PR
Affective Attitude (AA)	0.786						
Cognitive Attitude (CA)	0.456	0.666					
Perceived Behavioral Control (PBC)	0.306	0.513	0.673				
Purchase Intention (PI)	0.496	0.400	0.462	0.829			
Personal Norms (PN)	0.561	0.530	0.442	0.434	0.794		
Social Norms (SN)	0.544	0.452	0.439	0.547	0.552	0.787	
Perceived Risk (PR)	0.304	0.205	0.088	0.276	0.227	0.209	0.830
Composite Reliability	0.865	0.760	0.765	0.896	0.871	0.864	0.898
Average Variance Extracted	0.617	0.443	0.453	0.687	0.631	0.619	0.689

1. the values on the diagonal are the square roots of the AVE.

2. all correlations are significant at 1%, except the correlation between PR and PBC.

3. The Attitude (2nd order) Composite Reliability was 0.836, and the AVE was 0.720. These values were calculated according to the guidelines of Bido and Silva [30].

Source: Research data.

In the evaluation of the structural model, we check multicollinearity, relative importance of the predictors, structural coefficients, correlations between the exogenous and endogenous constructs, and the explained variance of the endogenous constructs. As shown in Table 2, all VIF values were less than 5, which indicates the absence of multicollinearity (Bido & Da Silva, 2019). When evaluating the relative importance of the predictors, we observed that the effect size (f^2) values ranged from approximately 0.02 (small) to 0.15 (medium). As the f^2 values are considered low, the VIF values were satisfactory. Additionally, the cognitive and affective attitude constructs were grouped into a 2nd order construct to decrease the chances of multicollinearity. Student's t-test, which evaluates the significance of correlations and regressions, presented all values above 1.96, which is considered satisfactory, except for Personal Norms. The explained variance (R^2) for the Purchase Intention construct was approximately 41%, which is considered large, above 26% (Bido & Da Silva, 2019). We corroborate ($p < 0.05$) five of the six proposed hypotheses.

Table 2

Analysis of the structural model

	Hyp	VIF	f2	Path coefficient	Standart error	t-test	p-value	R2
Attitude affective	--	1.000	5.168	0.915	0.010	89.328	0.000	0.837
Attitude cognitive	--	1.000	1.510	0.776	0.033	23.161	0.000	0.600
Attitude → PI	H1(+)	2.097	0.040	0.222	0.062	3.548	0.000	0.408
PBC → PI	H4(+)	1.377	0.061	0.222	0.051	4.327	0.000	0.408
PN → PI	H3(+)	1.889	0.000	0.006	0.052	0.125	0.901	0.408
SN → PI	H2(+)	1.732	0.082	0.289	0.060	4.811	0.000	0.408
PR → Attitude	H6(-)	1.000	0.106	0.310	0.050	6.232	0.000	0.093
PR → PI	H5(-)	1.115	0.024	0.126	0.063	2.009	0.045	0.408

p-values estimated by bootstrapping with 5.000 repetitions. PBC = perceived behavior control, PN = personal norms, SN = social norms, PR = perceived risk. Hyp = Hypothesis.

Source: Research data.

4. RESULTS

a) Sociodemographic aspects

The respondents in this survey sample were 55% female and 45% male, and more than half (56%) were adults between the ages of 30 and 60. Respondents over the age of 60 represented 11% of the sample, and respondents between the ages of 18 and 29 represented 33%. A large proportion of the respondents were married, representing 44% of the sample, 38% of the respondents were single, 11% lived in a stable communion, 5% were divorced, and 2% were widowed.

Regarding education, almost half of the respondents (47%) declared having completed higher education, 39% declared that they had completed high school, 8% declared having no education, and 6% declared having completed elementary school. Regarding monthly family income, 29% of the respondents declared they earned up to R$2,200.00; 19% declared they earned more than R$2,200.00 to R$3,300.00; 24% more than R$3,300.00 to R$6,600.00; 17% more than R$6,600.00 to R$11,000.00, and 11% more than R$11,000.00.

b) Association between purchase frequency and place of purchase

When checking the frequency of purchase of the respondents, we found that 82% had a high frequency of purchase (weekly to monthly), and only 18% bought once every three or six months. As for the place of purchase, 51% of the respondents buy directly from the producer, 19% buy at open fairs, 20% buy at small markets, and 10% buy at emporiums.

We found that the respondents who buy with the highest frequencies buy directly from the producer (1- every week and 2 - every fortnight associated with 2 - direct from the producer); respondents who buy with medium frequency buy at fairs (3 - once a month associated with 1- open fairs), and respondents who buy with less frequency buy at emporiums (4 - once every three months associated with 4 - emporiums) and in small markets (5 - once every six months associated with 3 - small markets). Figure 2 shows the results of the association between frequency of purchase and place of purchase.

c) Relations between the constructs

The attitude, perceived behavioral control, social norms, and perceived risk explain 41% of the purchase intention of artisan cheeses consumers (Table 2), composing a relevant portion in determining purchase intention. The complete research model after the analyses of the measurement and structural model evaluation is shown in Figure 3.

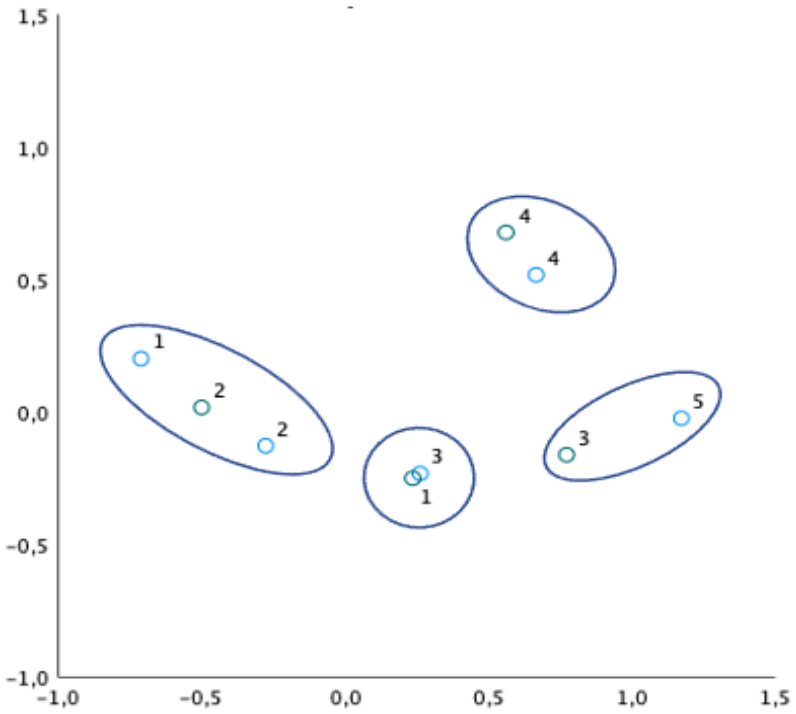

Figure 2 – Perceptual map of frequency of purchase versus place of purchase.

Frequency of purchase (blue circle): (1) every week; (2) every fortnight; (3) once a month; (4) once every three months; (5) once every six months. Place of purchase (green circle): (1) open fairs, (2) directly from the producer, (3) small markets, and (4) emporiums.
Source: Research data.

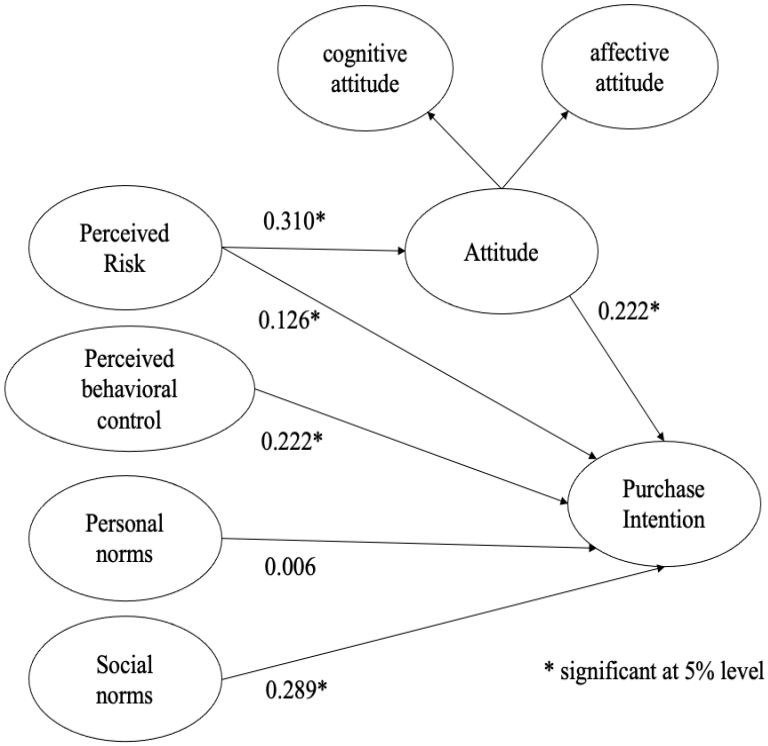

Figure 3 – Measurement and structural model

Source: Prepared by the authors.

We check that the values of the path coefficient values of the variables that influence purchase intention, specifically attitude, social norms, and perceived behavioral control, are positive and significant ($p < 0.05$), corroborating hypotheses 1, 2 and 4, respectively. The path coefficient values of perceived risk with purchase intention and attitude are also positive and significant ($p < 0.05$), which implied the refutation of hypotheses 5 and 6, respectively. As the value of the path coefficient between personal norms and purchase intention is not significant, we do not support hypothesis 3. See Table 3.

Table 3

Research hypotheses

	Hypothesis	**p - value**	
H1(+)	Consumer attitude positively influences their intention to buy artisanal cheese	0,000	support
H2(+)	Consumer social norms positively influence their intention to buy artisanal cheese	0,000	support
H3(+)	Consumer's personal norms positively affect their intention to buy artisanal cheese	0,901	not support
H4(+)	The consumer's perceived behavioral control positively influences his intention to buy artisanal cheeses	0,000	support
H5(-)	The risk perceived by the consumer negatively influences his intention to buy artisanal cheeses	0,000	not support
H6(-)	The risk perceived by the consumer negatively influences their favorable attitude when buying artisanal cheeses	0,045	not support

Source: Research data.

5. DISCUSSION

We provide empirical results on the factors that influence consumers' purchasing intentions for two important local Brazilian foods - the artisanal cheeses Serra da Canastra and Cabacinha. We show that the intention to purchase these cheeses is influenced by consumers' perceptions of risk, attitude, social norms, and perceived behavioral control, corroborating results from previous studies (Lorenz *et al*., 2015; H. Zhang *et al*., 2018; Mohammadian *et al*, 2023). However, the results showing that personal norms do not influence purchase intention, contradict the findings of Lorenz *et al*. (2015). Despite the difference in measuring personal norms in Lorenz *et al*. (2015), which include affective attitude measures, and our study, which understands that the affective attitude construct is different from personal norms (Arvola *et al*., 2008), it is possible this divergence of results is due more to cultural differences between Brazil and Germany than to the method of measurement, as our results also do not align with the study by Wenzig and Gruchmann (2018), also carried out with local German food consumers.

As personal norms refer to the personal point of view about what is right or wrong (moral obligation) (Schwartz, 1977), our results show that Brazilian consumers do not perceive the act of buying artisanal cheeses directly from the producer as right or wrong. This is due, in particular, to a close connection between consumers and producers, given the high frequency of direct purchase from the producer, as shown by the results of the simple correspondence analysis. Thus, the processing of information to make a decision to purchase artisanal cheeses, by consumers participating in this study, is influenced by bonds of friendship and positive interpersonal relationships with producers, which lead them to trust in the experience, honesty, and integrity of the producer (Garner, 2022).

The results of the test of the mediating variable attitude in the relationship between perceived risk and purchase intention show that perceived risk positively and significantly influences purchase intention, refuting our H5 and the studies on which it is based (Choi *et al*., 2013; H. Zhang *et al*., 2018; Y. Zhang *et al*., 2018), However, these findings corroborate the findings of Chen (2017) in the case of the scandal involving

chemical additives in food in Taiwan. We also showed that perceived risk specifically and significantly influences attitude, refuting our H6, and partially corroborating some results (H. Zhang *et al*., 2018; Y. Zhang *et al*., 2018) and fully others (Yarimoglu *et al*., 2019). Based on these results, we conclude by partial mediation (Vieira, 2009), since attitude as a mediating variable, although not strong enough to make the relationship between perceived risk and purchase intention non-significant, it positively and significantly affects the intention purchasing process, as seen in Choi *et al*. (2013), Y. Zhang *et al*. (2018), H. Zhang *et al*. (2018) and Yarimoglu *et al*. (2019).

Like that identified by Yarimoglu *et al*. (2019), the results indicate that the risk perception of consumers (research participants) of the Brazilian artisanal cheeses Serra da Canastra and Cabacinha is not strong enough to change their attitudes towards the purchase, nor is it able to directly affect directions the intention to purchase these products. This is explained by the results of simple correspondence analysis. We showed that the majority of consumers participating in our study frequently purchase products directly from the producer. This close relationship between producers and consumers allows for greater interaction and exchange of information between them about the origin, characteristics and quality of products and, consequently, increases consumer confidence in the producer, increasing the reputation of the producer and his product (Cruz & Menasche, 2014), and contributes to consumer loyalty, including those who buy artisanal cheeses in informal sales outlets (Roldan & Revillion, 2019).

6. CONCLUSION

We conclude that the combination of the TPB constructs (attitude, social norms, and perceived behavioral control) with the construct of perceived risk theory positively influences the purchase intention of local consumers of Serra da Canastra and Cabacinha artisanal cheeses in Brazil. There is evidence that this combination explains approximately 41% of variance in the purchase intention of artisan cheese consumers.

The non-influence of personal norms on purchase intention indicates that local consumers do not purchase the products out of a personal obligation to value the product or help the producer, but because consumers have a close and trusting relationship with the producers.

Regarding perceived risk, its significant positive influence on the intention and attitude of the consumers of artisanal cheeses can be explained by the fact that in this sample surveyed, most consumers buy directly and frequently from the producer, and thus have more information about the product and its producer. In these cases, consumers have greater knowledge about product attributes, such as packaging quality, storage method, date of manufacture and hygiene conditions of the manufacturing process, making them realize that consumption will not negatively affect their health and, thus, increase their intention to purchase the product.

The original results of our study contribute to directing new studies about the purchase intention of local foods considering the Theory of Planned Behavior and perceived risk for local consumers. We conclude that consumers have a positive evaluation and feelings toward artisanal cheeses, follow the social behavior of their environment when consuming them, are willing to buy them, and analyze the possibilities of risk. This study also contributes to helping cheese producers' direct promotion and marketing strategies to consumers considering these factors determining purchase intention.

Although we included in the conceptual model of this study the main constructs determining consumers' purchase intention of artisanal cheese, we recognize other important that factors were left out. Thus, future research may include factors such as proximity to the producer, product knowledge, perceived benefit, and anticipated regret in the model. They can also test whether subjective knowledge (low, medium or low) moderates the relationships presented here, given that the level of subjective knowledge influences consumers' perceptions of risk and benefits (H. Zhang *et al*., 2018).

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