



Cognitive, affective and behavioural repercussions of perceived quality in tourism vocational education: insights from Self-determination Theory

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Abstract

Purpose – This study aimed to investigate the influence of the perceived quality by students regarding their experiences in vocational schools in tourism, hospitality and food service on cognitive and affective responses (satisfaction, self-efficacy expectations and self-regulation strategies of motivation for learning - SRSML) and commitment (behavioural response).

Design/methodology/approach – A cross-sectional survey was conducted with 454 students from twelve Turismo de Portugal IP-affiliated schools. The theoretical framework was rooted in Self-Determination Theory (SDT) and PLS-SEM, using ADANCO 2.3 software to test the proposed model.

Findings – Perceived quality by students concerning their school experiences are socio-contextual factors that directly influence their satisfaction and self-efficacy expectations (cognitive and affective responses). Satisfaction and self-efficacy expectations positively affected SRSML. Finally, satisfaction and the SRSML positively impacted the students' commitment to schools (behavioural response).

Originality/value – This study contributes to academia by comprehensively addressing 16 perceived quality dimensions within vocational education. It aligns with SDT, revealing that socio-contextual factors affect students' cognitive, affective, and behavioural responses. Additionally, it demonstrates positive relationships between student satisfaction, self-efficacy expectations, SRSML, and students' commitment to vocational education institutions. This study emphasises the multidimensional nature of perceived quality, urging educational institutions to address tangible and intangible dimensions to develop strategies to provide high-quality experiences, increasing students' satisfaction, self-efficacy expectations, motivation, and commitment.

Keywords: Education in tourism, Vocational training, Student experiences, Student commitment, Motivational self-regulation strategies, Self-efficacy expectations.

1. Introduction

The tourism, hospitality and food services industry encompass various services, including hotels, restaurants, travel agencies and cultural attractions. This sector is a source of jobs and income, positively influencing countries' economic and social development (Wen *et al.*, 2023). However, this industry is labour-intensive and depends on qualified professionals to offer high-quality services and experiences to its customers (Seyitoğlu *et al.*, 2022). In this context, it is essential for "vocational schools in tourism, hospitality and food service" (VTS) to provide high-quality training and develop the skills and competencies required for future professionals to carry out their work activities with proficiency (Kahraman and Alrawadieh, 2021).

Theis *et al.* (2020) affirm that educational institutions must offer services and experiences that provide a high standard of quality perceived by students to satisfy them and positively influence their attitudes and behavioural intentions. Souki *et al.* (2020) state that people evaluate the quality of services they experience through tangible and intangible attributes capable of satisfying their needs, desires and expectations. Students perceive several socio-contextual attributes concerning the quality of their experiences with educational institutions. Such perceived quality attributes, their antecedents and consequences have aroused the interest of educational managers and academics (Cesário *et al.*, 2022; Santoso *et al.*, 2021).

Previous studies demonstrate that socio-contextual quality attributes students perceive concerning their school experiences generate cognitive and affective responses (Robb, 2012). In this context, the perceived quality by students regarding their experiences in the academic environment positively affects their satisfaction (Cesário *et al.*, 2022; Vanderley *et al.*, 2016) and their self-efficacy expectations about their ability to learn subjects and achieve satisfactory academic performance (Santoso *et al.*, 2021; Hayat *et al.*, 2020; Wolters and Benzion, 2013).

Cesário *et al.* (2022) and Hayat *et al.* (2020) argue that students who are more satisfied and have high self-efficacy expectations tend to develop self-regulation strategies of motivation for learning (SRSML). It is worth noting that students who implement SRSML tend to develop more effective study plans and better understand the subjects, recognising and solving problems. Such students typically take more responsibility for their learning and achieve higher academic performance than their peers (Hayat *et al.*, 2020; Sánchez-Rosas *et al.*, 2019; Paulino, 2015; Wolters and Benzion, 2013; Ryan and Deci, 2000). Cesário *et al.* (2022) and Hanaysha and Majid (2018) state that SRSML positively influences students' school commitment.

Several authors argue that it is necessary to monitor the quality students perceive regarding their experiences in the academic environment (Salmela-Aro and Upadyaya, 2020; Theis *et al.*, 2020; Vanderley *et al.*, 2016), particularly in tourism and hospitality education (Kahraman and Alrawadieh, 2021). Investigating the students' perceptions about the quality of their experiences in VTS is imperative for several reasons. Firstly, the tourism industry depends on proficient staff to offer high-quality services and experiences to customers (Seyitoğlu *et al.*, 2022). In this context, VTS must provide resources and inspire students to develop the skills needed to become future professionals in this industry. Hence, understanding students' perceptions about the quality of their educational experiences allows VTS managers to evaluate the effectiveness of education, aligning it with established parameters and the industry's needs (Cincir *et al.*, 2022; Georgiadou *et al.*, 2022). Secondly, comprehending the impacts of quality students perceive on their attitudes and behaviours towards VTS helps managers align the educational programs offered with student expectations (Theis *et al.*, 2020). Finally, it encourages VTS to develop an orientation towards providing high-quality experiences to students, creating in them a mentality of excellent service quality, which is crucial in tourism, hospitality and food service (Chinelato *et al.*, 2023; Souki *et al.*, 2023; Seyitoğlu *et al.*, 2022; Cincir *et al.*, 2022). However, no previous studies have contemplated comprehensive models

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3 for evaluating the quality students perceive concerning their experiences with VTS, which
4 constitutes the first gap identified in this study.

5 The perceived quality by students regarding their educational experiences constitutes
6 socio-contextual factors that impact their cognitive and affective responses (Robb, 2012).
7 Affective responses to perceived quality refer to individuals' emotional and subjective
8 reactions to the quality of a product, service or experience (Souki *et al.*, 2023). According to
9 Wolters and Bencion (2013), students' cognitive responses to the quality of their school
10 experiences encompass perceptions of stimuli, mental processing, interpretations,
11 comprehension, and retention of information. Furthermore, students plan, organise, and create
12 learning strategies, demonstrating awareness and deliberate control of cognitive processes
13 (metacognition).
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16 Among the cognitive and affective responses, students' satisfaction with their
17 experiences with schools stands out. Oliver (2014) defines satisfaction as a state of pleasure or
18 contentment experienced by people when comparing their expectations with perceived
19 performance. This author argues that satisfaction involves affective and cognitive components.
20 Furthermore, students' self-efficacy expectations are cognitive responses to their perceptions
21 of quality in interactions with schools (Paulino, 2015; Wolters and Bencion, 2013).
22 Nevertheless, no prior studies focused on the relationships between the perceived quality by
23 VTS students and its repercussions on satisfaction and self-efficacy expectations. Therefore,
24 the second gap that this study aims to fill is to investigate the impacts of the perceived quality
25 by VTS students on their self-efficacy expectations and satisfaction with schools.
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28 Previous studies demonstrate that student satisfaction influences the development of
29 SRSML (Davis, 2022; Sánchez-Rosas *et al.*, 2019; Wolters and Bencion, 2013). Other studies
30 show that students with high self-efficacy expectations tend to develop SRSML (Cesário *et al.*,
31 2022; Paulino, 2015). It is worth mentioning that SRSML involves cognitive and affective
32 responses. Examples of cognitive responses include students' recognition of possible negative
33 academic consequences of a lack of effort and the association of work goals with rewards,
34 demonstrating students' conscious strategies to motivate their dedication to learning. Among
35 the affective responses, students' concern regarding their academic results reveals fear or
36 anxiety associated with academic performance.
37

38 On the other hand, students can develop strategies such as promising to reward
39 themselves with something pleasurable if they perform specific tasks (Paulino, 2015; Wolters
40 and Bencion, 2013). Nevertheless, no prior research concomitantly demonstrated the impacts
41 of students' self-efficacy expectations and satisfaction with their VTS experiences on SRSML.
42 In this sense, the third gap this study aims to fill is evaluating the simultaneous impacts of
43 students' self-efficacy expectations and satisfaction with VTS experiences on SRSML.
44

45 Students' satisfaction with their academic experiences is paramount to their
46 commitment to educational institutions (Cesário *et al.*, 2022; Vieira, 2014). At the same time,
47 students who develop SRSML tend to be more committed to their institutions. Vieira (2014)
48 advocates that student commitment comprises cognitive and affective responses to their
49 perceptions of quality regarding schools. However, no previous investigations concomitantly
50 covered the impacts of satisfaction and SRSML on the commitment of VTS students.
51 Furthermore, no earlier study in this sector has considered commitment's affective, normative,
52 instrumental and behavioural dimensions (Keiningham *et al.*, 2015; Vieira, 2014). In this
53 context, this study's fourth gap is to comprehend the effects of SRSML and the satisfaction of
54 VTS students on their commitment to schools.
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56 Considering the above, this study's guiding questions are:

- 57 (1) What are the quality attributes that students perceive in their VTS experiences?
58 (2) What are the effects of perceived quality by VTS students on their self-efficacy
59 expectations and satisfaction with schools?
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3 (3) Do students' self-efficacy expectations and satisfaction impact SRSML?

4 (4) Do satisfaction and SRSML impact students' commitment to VTS?
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7 The authors used Self-Determination Theory (SDT), proposed by Deci and Ryan
8 (1985), to answer this study's guiding questions. Chiu (2022) states that SDT aims to explain
9 human needs, motivation and well-being dynamics in social contexts. SDT starts from the
10 premise that people have natural and innate tendencies to aspire to develop themselves to reach
11 a more elaborate personal level. In this sense, people seek to satisfy basic psychological needs
12 for autonomy, competence and relationships with other individuals or social groups, promoting
13 greater motivation and well-being. Furthermore, SDT argues that social and contextual
14 environment elements (socio-contextual factors) can influence individuals' attitudes and
15 experiences, affecting their motivations and behaviours (Smith *et al.*, 2023; Deci and Ryan,
16 2002). Chacón-Cuberos *et al.* (2021) state that socio-contextual factors are present both in the
17 educational institution's external environment (e.g., family influences, socioeconomic
18 situation, demography, and culture, among other aspects) and in its internal environment (e.g.,
19 teaching methodology, atmosphere, and teachers, among others).
20

21 In the present study, the quality students perceive regarding their experiences in
22 educational institutions represents the socio-contextual factors (Silva, 2023; Chacón-Cuberos
23 *et al.*, 2021; Loh *et al.*, 2021). This is because the quality perceived by VTS students refers to
24 their subjective assessment of various aspects of their school experience, including
25 infrastructure, school director, teachers, teaching methodology, assessment criteria, employees,
26 administrative organisation, and school atmosphere (Silva, 2023; Chacón-Cuberos *et al.*, 2021;
27 Vanderley *et al.*, 2016; Vieira, 2014). Therefore, SDT supports the premise that the quality
28 perceived by students about their school experiences are social and contextual stimuli that
29 influence the satisfaction of their basic psychological needs for autonomy, competence and
30 relatedness, increasing their motivation and involvement in academic activities (Rahmanpanah,
31 2017).
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33 Therefore, this study uses SDT to investigate the effects of socio-contextual factors
34 related to students' experiences with VTS on cognitive and affective responses, namely
35 satisfaction, self-efficacy expectations and SRSML. Furthermore, this study reveals that
36 SRSML and students' satisfaction with their experiences impacts their commitment to their
37 educational institution (behavioural response). It is worth mentioning that several authors used
38 SDT in their studies in the academic sector (Cesário *et al.*, 2022; Chiu, 2022; Georgiadou *et*
39 *al.*, 2022; Theis *et al.*, 2020). However, no previous research used SDT to simultaneously
40 describe the relationships between (1) Socio-contextual factors – perceived quality by students;
41 (2) Cognitive and affective responses (satisfaction, self-efficacy expectations and SRSML); (3)
42 behavioural responses – students' commitment to schools.
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44 The present study aims to (1) identify the tangible and intangible quality attributes
45 perceived by students in their experiences with VTS; (2) investigate the effects of perceived
46 quality by students on their expectations of self-efficacy and satisfaction with VTS; (3)
47 examine the impacts of students' self-efficacy expectations and satisfaction on SRSML; (4)
48 explore the impacts of satisfaction and SRSML on students' commitment to VTS.
49

50 The present study is unprecedented and contributes to academia because no previous
51 investigation has simultaneously covered the relationships between all the constructs it
52 encompasses (perceived quality, self-efficacy expectations, satisfaction, SRSML and
53 commitment to VTS). Furthermore, this study contributes to SDT by demonstrating the direct
54 effects of perceived quality (socio-contextual factors) on self-efficacy expectations and
55 satisfaction and their subsequent impacts on SRSML (cognitive and affective responses).
56 Finally, this study reveals that students' satisfaction with their experiences associated with
57 SRSML stimulates their commitment to schools (behavioural response).
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This study contributes to practice and society, including school directors, teachers, staff, students and regulatory and educational quality control entities. Its results confirm that students' perception regarding the quality of their experiences with schools is a multidimensional construct that involves several tangible and intangible attributes. The quality attributes students perceive are socio-contextual factors that influence cognitive, affective and behavioural responses. Therefore, this study suggests that educational institutions develop strategies and actions to offer excellent quality experiences for students, resulting in higher levels of satisfaction, self-efficacy expectations, SRSML and commitment to schools.

2. Theoretical background and research hypotheses

This study resorted to the SDT to exhibit the relationships between the hypothetical model's constructs (Figure 1).

PLEASE INSERT FIGURE 1 HERE

Figure 1. Hypothetical model

Source: Figure created by the authors

Henseler (2021a) and Hair *et al.* (2017) recommend using reflective constructs to represent the relationships between latent variables (second-order constructs) and their observable manifestations (first-order constructs). These authors highlight that Partial Least Squares Structural Equation Modeling (PLS-SEM) is appropriate when the hypothetical model constructs reflect external manifestations (observable indicators) of a latent construct (unobservable). In this sense, several previous studies operationalised perceived quality in the educational sector as a second-order construct that reflects various first-order constructs (Silva, 2023; Georgiadou *et al.*, 2022; Vanderley *et al.*, 2016; Cunha *et al.*, 2015; Vieira, 2014). Moreover, the quality perceived by students regarding their experiences in the educational context is a complex and multifaceted construct composed of many dimensions that reflect their global perception of quality. Hence, aggregating all indicators of these dimensions into a single construct implies an excessively simplified representation, omitting critical theoretical and managerial nuances. Accordingly, the present study considers that the perceived quality by students regarding their experiences with VTS is a second-order construct that reflects the following first-order constructs: location and accessibility, reputation, infrastructure, school director, class director, teachers, staff, services, administrative organisation, teaching methodology, assessment criteria, socio-emotional skills (SES), school atmosphere, extracurricular activities, future perspectives, status and social endorsement. These dimensions of perceived quality by students and other constructs included in the hypothetical model and their measurement items come from prior studies, as shown in this study's methodology.

The hypothetical model, based on SDT, proposes that the perceived quality by students regarding their experiences with VTS (socio-contextual factors) directly and positively impacts their satisfaction (H1) and their self-efficacy expectations (H2), which are cognitive and emotional responses. Students' satisfaction with their experiences with VTS directly and positively impacts their SRSML (H3). Furthermore, students' self-efficacy expectations directly and positively affect their SRSML (H4). This study also proposes that student satisfaction directly and positively influences their commitment to VTS (H5). Finally, the model evaluates whether the SRSML of students directly and positively impact their commitment to schools (H6), which is a behavioural response.

2.1 Perceived quality and its impact on students' satisfaction

Perceived quality refers to the evaluation that people make about the excellence or superiority of services or products compared to others available on the market (Zeithaml, 1988). The quality students perceive regarding their experiences in the educational environment has been the focus of studies in several countries (Cincir *et al.*, 2022; Theis *et al.*, 2020). Monitoring students' perceptions of quality allows us to determine whether institutions offer services according to established parameters (Georgiadou *et al.*, 2022). It is worth noting that understanding students' perceptions of quality provides insights so that managers can develop strategies and actions to improve their experiences with schools continually. Several studies demonstrate that the quality perceived by students is a multidimensional construct that generates attitudinal and behavioural repercussions regarding educational institutions (Cincir *et al.*, 2022; Vanderley *et al.*, 2016; Vieira, 2014). Theis *et al.* (2020) demonstrate that the quality characteristics of educational institutions influence student satisfaction. **In the present study, the quality that students perceive about their experiences in their educational institutions represents socio-contextual factors that affect their cognitive and affective responses, namely satisfaction (Chacón-Cuberos *et al.*, 2021; Vanderley *et al.*, 2016; Vieira, 2014) and self-efficacy expectations (Silva, 2023; Gebauer *et al.*, 2021).**

Several authors sought to understand the antecedents and consequences of the quality students perceive concerning their experiences in the educational context (Silva, 2023; Theis *et al.*, 2020; Vieira, 2014). Students' perception of quality regarding the services offered by educational institutions can influence attitudes and behavioural intentions such as satisfaction, regret, word-of-mouth communication, the propensity to loyalty, commitment and evasion (Vanderley *et al.*, 2016). Vieira (2014) asserts that the perceived quality by students positively impacts satisfaction and perceived value.

Satisfaction is common in studies about people's experiences in a manifold economic sector (Santini *et al.*, 2017). Oliver (2014) defines satisfaction as a state of pleasure or contentment experienced by people when comparing their expectations with perceived performance. Satisfaction involves affective and cognitive components (Chinelato *et al.*, 2023). When individuals assess that the performance of services or products meets or exceeds their expectations, they tend to be satisfied. On the other hand, if the perceived performance underwhelms their expectations, they tend to be dissatisfied (Chinelato *et al.*, 2023; Oliveira *et al.*, 2023).

Georgiadou *et al.* (2022), Santini *et al.* (2017), and Vanderley *et al.* (2016) demonstrated that the quality perceived by students in a myriad of educational contexts positively affects their satisfaction. Considering the above, the following hypothesis is:

H1. The perceived quality by VTS students concerning their experiences positively impacts their satisfaction.

2.2 Perceived quality and its relationship with students' self-efficacy expectations

Academic self-efficacy expectations are students' beliefs and attitudes about their ability to complete tasks, learn the subjects, and succeed in their studies (Choy and Yeung, 2024; Chacón-Cuberos *et al.*, 2021; Hayat *et al.*, 2020; Wolters and Benzon, 2013). According to Zamfir and Mocanu (2020), self-efficacy expectations are paramount for students' engagement, effort and perseverance during learning. Thus, students who have low self-efficacy expectations are more vulnerable to following a negative spiral in which low expectations lead to less effort, less success and, consequently, low self-esteem.

According to Robb (2012), people's self-efficacy expectations are situational, task-dependent and influenced by several factors. Thus, personal elements (e.g. personality, life

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3 history, culture, academic training) and behavioural and environmental elements (e.g. feedback
4 from teachers, pedagogical methods, and performance assessment systems) affect people.
5 Hence, educational institutions are not the only stimuli influencing students' self-efficacy
6 expectations. Nevertheless, by offering rich educational experiences to their students, they
7 allow them to be exposed to socio-contextual factors capable of stimulating them appropriately,
8 amplifying their perception of competence to perform tasks and achieve academic goals
9 (Gebauer *et al.*, 2021; Theis *et al.*, 2020).

11 Silva (2023) states that suitable environmental stimuli increase students' motivation for
12 learning, encouraging them to obtain skills and knowledge according to established goals.
13 Therefore, educational institutions must develop an environment conducive to learning,
14 considering aspects such as more innovative courses with a pedagogical design that meets the
15 students' basic psychological needs, with high educational quality, fostering interpersonal
16 relationships with colleagues and other community-academic members (Theis *et al.*, 2020;
17 Robb, 2012).

19 Santoso *et al.* (2021) demonstrated that external stimuli offered by educational
20 institutions expand students' self-efficacy expectations, positively impacting their attitudes and
21 behavioural intentions. Theis *et al.* (2020) state that educational institutions must provide
22 extracurricular activities that allow social interaction, as students consider these more
23 stimulating and challenging. Educational institutions fostering interpersonal support aid the
24 development of their students' socio-emotional skills (Salmela-Aro and Upadyaya, 2020).

26 Positive feedback stimulates autonomy and a feeling of competence (Deci and Ryan,
27 2002). Davis (2022) affirms that students' involvement in setting goals and in the assessment
28 and self-evaluation criteria for their tasks changes the locus of control over appraisal and
29 learning results. Thus, students increase their feeling of responsibility for the teaching-learning
30 process. Finally, augmented student involvement stimulates self-efficacy expectations and
31 engagement in more challenging goals.

33 Robb (2012) argues that creating a good classroom infrastructure influences students'
34 self-efficacy expectations, also impacting their motivation and engagement in the teaching-
35 learning process. Ahmed (2017) states that teachers can use effective pedagogy strategies to
36 stimulate their students' self-efficacy expectations. Accordingly, students perceive that socio-
37 contextual factors are stimuli provided by educational institutions that add quality to their
38 experiences, positively influencing their self-efficacy expectations. Considering the above, the
39 following hypothesis is:

41 *H2.* The quality perceived by VTS students regarding their experiences with schools
42 positively impacts their self-efficacy expectations.

45 **2.3 Satisfaction and its relationship with motivational self-regulation strategies for learning** 46 **(SRSML)**

48 Individuals create expectations about the performance of products and services before
49 trying them. When they judge that the performance met or exceeded their expectations, they
50 exhibit favourable emotional and cognitive responses, such as satisfaction. In contrast, they tend
51 to be dissatisfied if they perceive that performance is lower than expected (Oliver, 2014).
52 According to Davis (2022), satisfying students' expectations by meeting their basic
53 psychological needs encourages them to create strategies to regulate their motivation for learning.

55 Cesário *et al.* (2022) argue that people seek to experience some form of pleasure or
56 interest to carry out the behaviour. Thus, stimulating activities can contribute to student
57 satisfaction, encouraging them to develop SRSML to make tasks more fun. Sánchez-Rosas *et*
58 *al.* (2019) and Wolters and Bazon (2013) emphasise that situational interest regulation is a
59 motivational self-regulation strategy used by students to accomplish their activities in a playful,
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3 fun and pleasurable way. On the other hand, when a task is not very stimulating, boring, routine,
4 tedious, arduous or irrelevant, it will cause demotivation among students, causing it to be
5 neglected or even abandoned (Cesário *et al.*, 2022). Thus, the following hypothesis is:

6 *H3.* The satisfaction of VTS students regarding their experiences with schools
7 positively impacts their SRSML.
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10 **2.4 Students' self-efficacy expectations and their relationship with SRSML**

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13 Individuals with high expectations of self-efficacy tend to believe in their ability to perform
14 certain activities successfully (Choy and Yeung, 2024). Such expectations encourage them to
15 dedicate more effort to establishing challenging objectives and goals (Bandura, 1994).
16 Moreover, they use different strategies and resources to regulate their motivation (Ahmed,
17 2017).

18
19 Sánchez-Rosas *et al.* (2019) state that SRSML is students' efforts to maintain or
20 improve their motivation to perform academic activities. Hayat *et al.* (2020) demonstrated that
21 students' self-efficacy expectations impact their metacognitive learning strategies and
22 academic performance. Cesário *et al.* (2022) argue that students' self-assessment regarding
23 their ability to carry out educational tasks is a pivotal factor in stimulating their motivation to
24 study. Paulino (2015) argues that students' self-efficacy expectations influence the adoption of
25 SRSML, positively impacting their academic success. Hence, the following hypothesis is:

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27 *H4.* VTS students' self-efficacy expectations positively impact their SRSML.
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30 **2.5 Satisfaction and its relationship with students' commitment to schools**

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33 Cownie (2019) defines commitment as a continuous connection based on the need, desire or
34 obligation to maintain a relationship and make investments to perpetuate it with an organisation
35 (e.g. educational institution), with people (e.g. teachers, directors, employees, colleagues) or
36 causes (e.g. academic training or a professional career).

37
38 Students' commitment is relevant to their academic success and the educational
39 institutions they study. This is because students who have a higher level of commitment to their
40 course and their institution tend to have better academic performance, evade less and
41 recommend more to other people than less committed students (Cownie, 2019).

42
43 Allen and Meyer (1990) developed a study to evaluate the antecedents of employee
44 commitment to organisations. According to the authors, commitment has affective, normative
45 and continuity or instrumental dimensions. Affective commitment occurs when individuals
46 become emotionally attached to the institution and its members. In this type of commitment,
47 there is a sense of identification and belonging of people with the organisation, which means
48 that their objectives are aligned with those of the institution. Therefore, affective commitment
49 is a feeling of loyalty, a desire to remain in the organisation and an interest in striving for it
50 based on affective components (Allen and Meyer, 1990).

51
52 Normative commitment occurs when individuals commit to organisations because they
53 believe in their values, norms and institutional objectives, taking them as their own.
54 Accordingly, the institution's norms, regulations and culture shape the individual's behaviour
55 in the direction it desires (Wiener, 1982).

56
57 Instrumental commitment refers to assessing the costs and benefits of abandoning an
58 organisation, institution or course. In this type of commitment, the person perceives the high
59 cost of dropping out, as they have already spent financial, material, emotional and time
60 resources on the institution or course, generating losses. Furthermore, the individual may

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3 realise they do not have better or more viable alternatives if they quit the institution (Vieira,
4 2014).

5
6 In addition to the three dimensions proposed by Allen and Meyer (1990), the literature
7 reports another type of commitment: when people tend to maintain consistency in their way of
8 acting concerning the organisation out of habit or custom. These authors call this dimension
9 behavioural or conative commitment. As the individual presents certain behaviours, a tendency
10 to repeat them in the future is created, resulting in a behavioural and psychological bond
11 regarding the institution (Vieira, 2014). Keiningham *et al.* (2015) describe this type of
12 commitment as habitual due to repetitive behaviour, characterised by inertia.

13
14 In the last few decades, Allen and Meyer's (1990) study has been used as a theoretical
15 basis to develop investigations into commitment in different activities. Vieira (2014) adapted
16 the scale proposed by Allen and Meyer (1990) and validated an instrument for assessing the
17 commitment of undergraduate students to their courses involving the normative, instrumental,
18 affective and behavioural dimensions. The author also found that satisfaction directly and
19 positively impacts students' commitment to the schools. Accordingly, the following hypothesis
20 is:

21
22 *H5.* The satisfaction of VTS students positively impacts their commitment to schools.

23 24 25 **2.6 Motivational self-regulation strategies for learning and its relationship with students'** 26 **commitment to schools**

27
28 The concepts of motivation and commitment are distinct, but they are profoundly
29 related and can influence people's attitudes and behaviours (Cesário *et al.*, 2022). Hanaysha
30 and Majid (2018) demonstrated that motivation positively affects commitment. These authors
31 emphasise that this result is supported by several studies that reveal that motivation is a
32 prominent predictor of commitment.

33
34 Cesário *et al.* (2022) used SDT to identify the relationship between the factors that
35 motivate students to pursue careers in the hospitality and tourism industry and their
36 commitment to the university and its program. This study revealed that students' introjected
37 motivation positively influences their commitment to the educational institution and the
38 program. Consequently, the external stimuli provided during students' experiences with
39 educational institutions affect their introjected extrinsic motivation, subsequently impacting
40 their commitment. Considering the above, the following hypothesis is:

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42
43 *H6.* The SRSML of VTS students positively impacts their commitment to schools.

44 45 46 **3. Methodology**

47
48 The present study is quantitative and descriptive. A single cross-sectional survey was
49 conducted with 454 students enrolled in 12 VTS belonging to Turismo de Portugal IP. This
50 investigation's electronic form included questions about the perceived quality by students
51 regarding their experiences at the mentioned educational institutions. No previous studies
52 assessed the quality students perceive at VTS. This study's perceived quality scales are adapted
53 from investigations involving university students (Cunha *et al.*, 2015; Vieira, 2014), high
54 school students (Paulino, 2015) and language courses (Vanderley *et al.*, 2016), as Table I
55 demonstrate.

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PLEASE INSERT TABLE I HERE

This study uses SDT to understand the impacts of quality perceived by VTS students during their school experiences. It is worth noting that the quality attributes provided by VTS represent contextual factors that impact students' cognitive, affective and behavioural responses (Deci and Ryan, 2002). Therefore, this investigation's electronic form also included cognitive and affective responses (satisfaction, self-efficacy expectations and SRSML) and behavioural responses (students' commitment to schools).

This survey's instrument uses a five-point Likert-type agreement or disagreement scale, where the numeral one means totally disagree, and five represents totally agree, as Malhotra *et al.* (2017) recommended. The alternative I do not know/ It does not apply was included, as some students may not have tested some of the services offered by schools.

This survey's sample is non-probabilistic for convenience and accessibility, which limits the extrapolation of research results to the broader population (Malhotra *et al.*, 2017). Still, they emphasise that such sampling can provide reasonable estimates of the characteristics of the study universe. The researchers used the G* Power 3.1.9.4 software (Faul *et al.*, 2009) to ascertain the sample's adequacy and the statistical analyses' power (Hair *et al.*, 2017). Considering a strict criterion (significance of 1%, statistical power of 0.01 and the average effect size of $f^2 = 0.15$), the minimum recommended sample size was 188 individuals (Cohen, 1988). This study involved 454 students, representing 2.41 times more observations than the recommended parameter. The G* Power 3 post hoc analysis revealed a statistical power for this survey's hypothetical model (0.999), indicating adequate sample size.

The present study used PLS-SEM, as suggested by Henseler (2021a), Hair *et al.* (2019b) and Ali *et al.* (2018). As Henseler (2021b) indicated, the authors used the ADANCO 2.3 software to analyse the data from this research. We chose this software because it allows us to evaluate complex structural models with multiple relationships between variables and simultaneously estimate structural and measurement models (Henseler, 2021a).

4. Analysis and discussion of results

4.1 Sample description

The final sample comprises 454 students enrolled in 14 courses at 12 VTS belonging to the Turismo de Portugal IP. The results indicate that 57.0% of respondents are male, 40.5% are female, and 2.5% prefer not to respond. The minimum age for students is 15 years old, and the maximum is 63 years old. The average is 20.3 years, and the standard deviation is 5.3 years.

4.2 The measurement model's analysis

This survey's measurement model used Confirmatory Factor Analysis (CFA). Initially, the variables that compound each construct were specified. Then, they were assessed whether their factor loadings (λ) were superior to 0.6, as recommended by Hair *et al.* (2019a). The lowest factor loading found in this research was 0.666 (Table I). The bootstrapping test assessed whether the factor loadings had a p-value < 0.05 , and the results showed that all variables were lower than 0.001.

Henseler (2021a) recommends that the CFA assess the constructs' reliability through the Dijkstra-Henseler rho (ρ_A) and the Jöreskog rho (ρ_C). Sarstedt *et al.* (2017) suggest that the values of these indicators should be between 0.7 and 0.9. The lowest ρ_A found was 0.745, and the ρ_C was 0.849. Furthermore, Hair *et al.* (2019b) advise that the Cronbach's alpha coefficient (CA) for previously tested scales is grander than 0.7. This survey's lowest CA value is 0.735. Therefore, all reliability indicators met the recommended parameters (Table I). Moreover, this study constructs' convergent validity was confirmed by the Average Variance Extracted

(AVE), whose values exceeded 0.568, exceeding the recommended threshold of 0.50 (Hair *et al.*, 2019a; Sarstedt *et al.*, 2017), as Table I shows.

According to Hair *et al.* (2019a), Discriminant Validity (DV) evaluates the statistical distinction between concepts. In this study, the heterotrait-monotrait ratio of common factor correlations (HTMT) was used, as Hair *et al.* (2019b) and Henseler *et al.* (2015) suggest. Henseler *et al.* (2021a) argue that the HTMT criterion estimates the accurate correlation between two constructs. Ali *et al.* (2018) state that high HTMT values demonstrate DV problems between the constructs. Hair *et al.* (2019b) and Henseler *et al.* (2015) suggest that HTMT values should be less than 0.90 if the model includes conceptually similar constructs and 0.85 when the constructs are distinct. In this research, the HTMT values of the constructs are lower than the advised parameters, indicating the DV for almost all constructs in the model (Table II). The only exception was for the constructs Situational Interest and Self-Reinforcement (0.931), which included indicators with very similar semantics, making their discrimination difficult for the respondents. However, the authors resorted to Fornell and Larcker's (1981) criterion, which proved the existence of DV among these constructs.

PLEASE INSERT TABLE II HERE

Hair *et al.* (2019a) argue that Harman's single-factor test allows researchers to ascertain common method bias (CMB). To ensure that the CMB is not present, these authors advise that the analysis of the main components of the indicators measured in the hypothetical model should represent less than 50% of the variance shared between them in the first eigenvalue obtained. In this study, Harman's single-factor test included the indicators of the three second-order constructs (perceived quality, SRSML and commitment). The Perceived quality construct has 77 items, and the first factor justified only 41.82% of the variance explained. The SRSML construct encompassed 23 indicators, and the first factor explained solely 48.02% of the explained variance. The construct commitment contained 16 items; its first factor is responsible for 46.01% of the explained variance. Hence, these values were below the parameters suggested by Hair *et al.* (2019a). Fuller *et al.* (2016) point out that CMB should be viewed as a problem for research results only when the variance of common methods is effectively high. Finally, Harman's single-factor test is quite robust in identifying common method variance problems if the AVEs and scale reliability meet the reference parameters indicated in the literature (Hair *et al.*, 2019a). Thus, the CMB are not a restriction for interpreting this study's results.

4.3 The structural model's analysis

After evaluating this study's measurement model, the researchers assessed the structural model using path coefficients (β) and their significance (α). Path analysis allows researchers to identify exogenous constructs' direct, indirect, and total effects on endogenous constructs (Hair *et al.*, 2019a).

This study used Pearson's coefficient of determination (R^2), which evaluates the fraction of variance in endogenous constructs explained by exogenous constructs in the structural model. The higher the R^2 of the endogenous constructs, the better the explanatory power of the exogenous constructs, reflecting the model's quality (Ringle *et al.*, 2014). Cohen (1988) argues that R^2 has a negligible effect when its value is equal to or less than 2%. However, the impact is average when its value equals 13%. Finally, percentages equal to or greater than 26% denote a notable impact. All constructs in this study had substantial effects, as R^2 values exceeded the 26% level, except for the construct Location and accessibility ($R^2=14.6\%$), which has a medium impact. It demonstrates the lesser importance of this construct as

an influencer of the perception of quality from the perspective of VTS students. The path coefficients of the structural model, their p-value and R^2 are in Figure 2.

PLEASE INSERT FIGURE 2 HERE

Figure 2. Structural model

Source: Research data.

Notes:

*** - Path coefficient is significant at 0.1% (p-value <0.001).

R^2 - Pearson's coefficient of determination.

In this study, perceived quality is an exogenous construct that directly and positively impacts satisfaction ($\beta = 0.779$ and $R^2 = 60.6\%$), supporting H1 and corroborating Khoo *et al.* (2017). Moreover, perceived quality directly and positively impacts self-efficacy expectations ($\beta = 0.597$ and $R^2 = 35.7\%$), supporting H2 and providing additional evidence to prior research (Santoso *et al.*, 2021; Hayat *et al.*, 2020). The results also demonstrate that perceived quality indirectly and positively affects SRSML (indirect effect = 0.608) and students' commitment to VTS (indirect effect = 0.649).

Satisfaction ($\beta = 0.350$) with self-efficacy expectations ($\beta = 0.561$) is an exogenous construct that directly and positively impacts the endogenous construct SRSML ($R^2 = 63.9\%$). These results support H3 and H4 (p<0.001) and endorse prior research (Davis, 2022; Sánchez-Rosas *et al.*, 2019; Wolters and Benzoni, 2013). Furthermore, self-efficacy expectations indirectly and positively affect students' commitment to VTS (indirect effect = 0.244).

Student satisfaction has direct and indirect positive effects on their commitment to VTS ($\beta = 0.494$; indirect effect = 0.152; total effect = 0.646). In addition, SRSML directly and positively impacts their commitment to VTS ($\beta = 0.434$). The paths between these constructs were significant at the 0.1% level, supporting H5 and H6. This result is congruent with previous studies (Cesário *et al.*, 2022; Cownie, 2019; Vanderley *et al.*, 2016). Finally, this nomological chain explains a considerable portion of students' commitment to VTS ($R^2 = 70.6\%$). Hence, the results confirm this study's hypotheses.

5. Conclusions and contributions to theory, practice and society

5.1 Conclusions and contributions to theory

This study used SDT and contributes to academia by filling relevant gaps in the literature. SDT advocates that human beings seek to develop themselves to reach a more elaborate personal level, and socio-contextual factors can stimulate or inhibit this natural and innate tendency (Deci and Ryan, 2002). The attributes of quality students perceive concerning their experiences represent external socio-contextual factors to the students but are influenced by schools, as postulated by SDT (Loh *et al.*, 2021; Theis *et al.*, 2020). Thus, the first gap filled by this study was to identify tangible and intangible dimensions of quality perceived by VTS students regarding their experiences with schools. It is worth noting that no previous investigation on the quality perceived by VTS students has simultaneously considered all the constructs included in the present study. Accordingly, this study contributes to the theory by being more comprehensive than the previous ones (Kahraman and Alrawadieh, 2021), covering tangible attributes (infrastructure and location and accessibility) and intangible attributes (reputation, infrastructure, school director, class director, teachers, employees, services, administrative

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3 organisation, teaching methodology, assessment criteria, SES, school atmosphere,
4 extracurricular activities, future perspectives, and status and social endorsement).

5
6 The second gap that this study filled was to prove that the quality attributes perceived
7 by VTS students regarding their experiences with schools constitute external socio-contextual
8 factors that directly and positively affect their satisfaction and expectations of self-efficacy
9 (cognitive and affective responses). Hence, this study contributes to SDT by demonstrating that
10 socio-contextual quality factors perceived by VTS students that stimulate their autonomy,
11 competence and relationships can positively impact their motivation and commitment to
12 academic activities (Rahmanpanah, 2017).

13
14 The present survey filled the third gap, attesting to the direct and positive impacts of
15 students' self-efficacy expectations and their satisfaction with VTS on SRSML. Therefore, this
16 study contributes to the theory by demonstrating that satisfaction and self-efficacy expectations
17 are paramount for students to develop greater resilience, dedication, commitment and effort to
18 achieve goals and positive results that contribute to regulating their motivation with a focus on
19 learning, expanding prior studies (Choy and Yeung, 2024; Zamfir and Mocanu, 2020; Salmela-
20 Aro and Upadyaya, 2020; Sánchez-Rosas *et al.*, 2019).

21
22 The fourth gap filled by this study refers to the effects of SRSML and the satisfaction
23 of VTS students on their commitment to schools. Students who are more satisfied with their
24 school experiences and who develop SRSML tend to be more committed to the institutions
25 where they study (behavioural response). Therefore, this study contributes to the SDT by
26 revealing that student behaviour is shaped by complex relationships between socio-contextual
27 factors (perceived quality), cognitive and affective responses (satisfaction, self-efficacy
28 expectations and SRSML) and behavioural responses (commitment). This study contributes to
29 the theory because it is unprecedented and more comprehensive than previous ones, which did
30 not simultaneously cover all the hypothetical relationships mentioned above (Cesário *et al.*,
31 2022; Kahraman and Alrawadieh, 2021; Cowrie, 2019).

32 33 34 **5.2 Conclusions and contributions to practice and society**

35
36 This study's first contribution to practice is identifying tangible and intangible quality
37 dimensions that students perceive in their experiences with VTS. Such information is valuable
38 for the directors of these educational institutions, as they represent socio-contextual factors that
39 influence students' cognitive, affective and behavioural responses. Thus, this study benefits
40 educational institutions using such dimensions as criteria for evaluating the academic quality
41 they offer their students. In this sense, VTS may implement feedback programs and regular
42 student satisfaction assessments to identify areas for improvement and promote a more
43 stimulating and effective learning environment. Based on these assessments, schools can
44 develop strategies and actions to provide excellent quality experiences, positively impacting
45 students' satisfaction, self-efficacy expectations, SRSML and commitment.

46
47 VTS faculty and staff can also benefit from this study by understanding that their
48 practices and behaviours are essential to meeting students' basic psychological needs for
49 autonomy, competence, and relationships. Teachers influence teaching methodology, SES, and
50 fair assessment criteria and maintain an encouraging environment, reverberating in the
51 students' perception of quality concerning their experiences in VTS. Employees can also
52 contribute to the perception of the quality of student experiences and their attitudinal and
53 behavioural repercussions by prioritising the excellence of the administrative organisation,
54 services provided and the school atmosphere. Moreover, faculty and staff should focus on these
55 perceived quality attributes to improve student satisfaction and self-efficacy expectations.

56
57 Additionally, VTS may incorporate SRSML training, such as goal setting, study
58 techniques, and time management, to support students in becoming more autonomous and
59
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proactive learners, resulting in greater satisfaction and self-efficacy expectations. VTS that foster a strong sense of community and belonging through extracurricular activities, social events, and a warm school atmosphere will strengthen bonds between students, teachers, employees and the institution, increasing students' commitment to their schools.

Students can benefit from this study by recognising that some perceived quality attributes influence their self-efficacy expectations and satisfaction with VTS. Understanding the impacts of these attributes on their commitment to the educational institution can motivate them to engage more actively in their education, seeking to develop self-determination and resilience skills. Furthermore, this study includes several SRSML that can aid students in increasing their academic performance and remaining committed to their schools.

Educational quality regulation and control entities can use this study's results to establish evaluation parameters, rankings and incentives to improve the VTS' academic quality.

Finally, this study has implications for society by demonstrating that improving the quality of students' educational experiences contributes to satisfying their basic psychological needs, resulting in more satisfied and promising professionals for the job market in tourism, hospitality, and food service.

6. Research limitations and suggestions for future research

This study has some limitations. The first limitation is that data collection occurred through a single cross-section. Considering that social phenomena can change over time, future studies may monitor the evolution of students' opinions over time.

This survey included students from 12 VTS of the Turismo de Portugal IP. Therefore, its results cannot be generalised to students taking vocational courses in other areas (e.g. mechanics, nursing or software development courses), modalities (e.g. online or hybrid courses) and educational levels (e.g. undergraduate or postgraduate). This is because the socio-contextual factors (perceived quality attributes) that affect cognitive, affective and behavioural responses may differ for each of these areas, modalities and educational levels.

Finally, this survey's sample is non-probabilistic for convenience and accessibility. Hence, it does not allow extrapolation of its results to other populations. Future studies may use simple or stratified random samples that have a probabilistic nature. Furthermore, considering that cultural aspects inherent to Portugal may have interfered with the results, it is recommended that this research model be adapted and tested in different countries.

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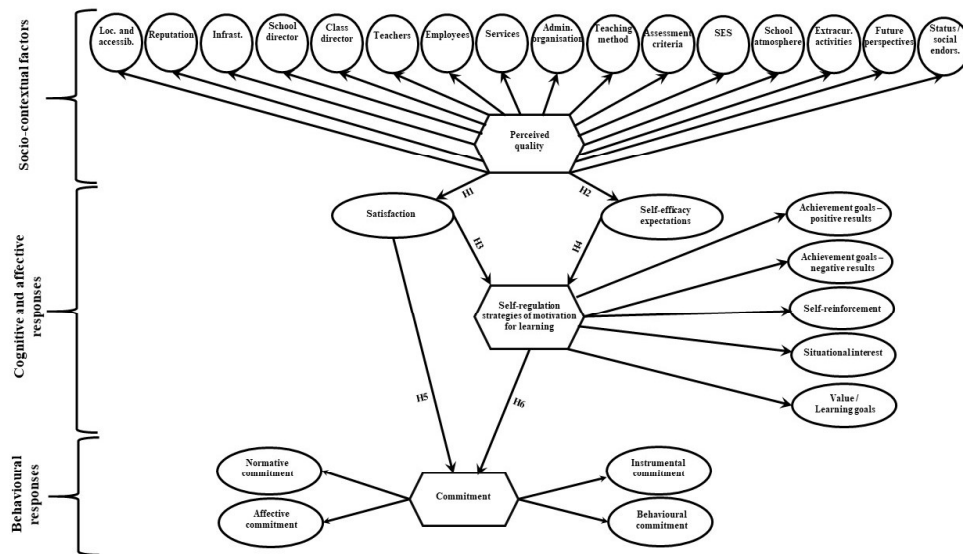


Figure 1. Hypothetical model

338x190mm (96 x 96 DPI)

Table I. Constructs, measurement items and authors

	Constructs and measurement items	Factor loadings
Perceived quality - Socio-contextual factor	<i>Location and accessibility</i>	
	Adapted from Vanderley et al. (2016)	
	$\rho_A=0.848$; $\rho_c=0.904$; $CA=0.804$; $AVE=0.759$	
	The school that I study at ...	
	has an excellent location	0.884
	is easy to get to from my house	0.811
	is in an easily accessible location	0.915
Perceived quality - Socio-contextual factor	<i>Reputation</i>	
	Adapted from Vanderley et al. (2016)	
	$\rho_A=0.902$; $\rho_c=0.938$; $CA=0.900$; $AVE=0.834$	
	The school that I study at ...	
	is recognised for offering excellent professional training in the tourism, hotel and restaurant sectors.	0.923
	has an excellent reputation in the tourism, hotel and restaurant sectors.	0.907
	is considered by people for its excellent quality of professional training for the tourism, hotel, and restaurant sectors.	0.909
Perceived quality - Socio-contextual factor	<i>Infrastructure</i>	
	Adapted from Vanderley et al. (2016)	
	$\rho_A=0.798$; $\rho_c=0.866$; $CA=0.793$; $AVE=0.617$	
	The school that I study at has an excellent infrastructure ...	
	Classrooms	0.797
	Computer Laboratory	0.741
	Bathrooms	0.794
	Cafeteria, bar or canteen	0.807
Perceived quality - Socio-contextual factor	<i>School director</i>	
	Silva (2023)	
	$\rho_A=0.946$; $\rho_c=0.959$; $CA=0.946$; $AVE=0.822$	
	The principal of the school that I study ...	
	Is available to listen to, help, and guide students.	0.911
	Has an excellent relationship with students.	0.911
	Has clear and efficient communication with students.	0.911
Seeks, within its possibilities, to respond to requests and solve problems brought by students.	0.912	
	Comply with commitments agreed with students.	0.888
Perceived quality - Socio-contextual factor	<i>Class director</i>	
	Silva (2023)	
	$\rho_A=0.973$; $\rho_c=0.976$; $CA=0.972$; $AVE=0.838$	
	The director of my class ...	
	Is available to listen to, help, and guide students.	0.926
	Has an excellent relationship with students.	0.926
	Treat students with respect and politeness.	0.892
	Has clear and efficient communication with students.	0.934
	Seeks, within its possibilities, to respond to requests and solve problems brought by students.	0.916
	Proposes, develops and encourages the execution of projects that promote student learning.	0.882
	Fulfill commitments agreed with students.	0.924

1			
2		Contributes significantly to student learning.	0.921
3		<hr/>	
4		<i>Teachers</i>	
5		Adapted from Vieira (2014)	
6		$\rho_A=0.933$; $\rho_c=0.941$; $CA=0.929$; $AVE=0.668$	
7	Perceived quality – Socio-contextual factor	The teachers at the school that I study ...	
8		present excellent knowledge of the content of the subjects.	0.812
9		have excellent teaching skills.	0.846
10		are concerned with helping students learn and develop their skills.	0.870
11		are assiduous.	0.740
12		are punctual.	0.719
13		maintain an excellent relationship with students.	0.852
14		treat students with respect and politeness.	0.859
15	respect the students' point of view.	0.830	
16		<hr/>	
17		<i>Employees</i>	
18		Adapted from Vieira (2014)	
19		$\rho_A=0.956$; $\rho_c=0.966$; $CA=0.956$; $AVE=0.849$	
20	Perceived quality – Socio-contextual factor	The employees at the school that I study...	
21		are available to listen, help and guide students	0.908
22		have an excellent relationship with students	0.941
23		treat students with respect and politeness	0.912
24		have clear and efficient communication with students	0.932
25		seek, within their possibilities, to respond to requests and solve problems raised by	0.915
26	students.		
27		<hr/>	
28		<i>Services</i>	
29		Silva (2023)	
30		$\rho_A=0.848$; $\rho_c=0.887$; $CA=0.848$; $AVE=0.568$	
31	Perceived quality – Socio-contextual factor	The quality of the following services provided by the school I study is excellent	
32		School office	0.728
33		Treasury	0.744
34		Infrastructure maintenance sector (Ex. repairs, painting, etc.)	0.765
35		Information technology sector	0.755
36		Cleaning sector	0.784
37	Cafeteria, bar and canteen	0.743	
38		<hr/>	
39		<i>Administrative organisation</i>	
40		Adapted from Vieira (2014)	
41		$\rho_A=0.948$; $\rho_c=0.958$; $CA=0.947$; $AVE=0.791$	
42	Perceived quality – Socio-contextual factor	The school that I study at ...	
43		has an excellent administrative organisation.	0.867
44		solve problems simply and without bureaucracy.	0.892
45		presents the school's rules and guidelines.	0.890
46		has clear and efficient communication with students.	0.900
47		fulfills commitments agreed with students.	0.881
48	seeks, within its possibilities, to respond to requests and solve problems brought by	0.907	
49	students.		
50		<hr/>	
51		<i>Teaching methodology</i>	
52		Silva (2023)	
53		$\rho_A=0.927$; $\rho_c=0.948$; $CA=0.927$; $AVE=0.820$	
54	Perceived quality - Socio-contextual factor	The school that I study at ...	
55		has excellent teaching quality.	0.896
56		uses a modern and innovative teaching methodology.	0.899

1			
2		uses a teaching methodology that appropriately associates theory with practice.	0.917
3		offers a teaching methodology that helps students solve the challenges they will encounter	
4		in the job market.	0.909
5		<hr/>	
6	Perceived quality – Socio-contextual factor	<i>Assessment criteria</i>	
7		Silva (2023)	
8		$\rho_A=0.863$; $\rho_c=0.915$; $CA=0.861$; $AVE=0.782$	
9		The school that I study at ...	
10		presents coherence between what is taught and what is required in assessments and	
11		assignments.	0.897
12		has fair criteria for evaluating students.	0.883
13		has a level of study requirements appropriate to the level of education offered.	0.873
14		<hr/>	
15	Perceived quality – Socio-contextual factor	<i>Socio-emotional skills (SES)</i>	
16		Silva (2023)	
17		$\rho_A=0.926$; $\rho_c=0.940$; $CA=0.925$; $AVE=0.690$	
18		The school that I study at ...	
19		develops students' socio-emotional skills, such as respect, empathy, collaboration and	
20		honesty.	0.802
21		concerns students' human, moral, and ethical training.	0.843
22		encourages students to care about the environmental responsibility.	0.782
23		encourages students to care about social responsibility.	0.861
24		encourages students to be inclusive, accepting and respecting diversity among people (e.g.	
25	ethnicity, religion, gender, opinions, etc.).	0.843	
26	stimulates and demands discipline from students.	0.839	
27	encourages students to recognise their obligations and responsibilities.	0.844	
28		<hr/>	
29	Perceived quality – Socio-contextual factor	<i>School atmosphere</i>	
30		Adapted from Vieira (2014)	
31		$\rho_A=0.932$; $\rho_c=0.946$; $CA=0.9314$; $AVE=0.747$	
32		The atmosphere at the school that I study...	
33		gives students the freedom to express their opinions.	0.818
34		has adequate means to receive complaints and suggestions from students.	0.903
35		handles student complaints and suggestions quickly and effectively.	0.893
36	properly handle cases of "bullying" and conflicts between those involved.	0.817	
37	always provides feedback to students regarding their complaints and suggestions.	0.906	
38	is welcoming to students.	0.838	
39		<hr/>	
40	Perceived quality – Socio-contextual factor	<i>Extracurricular activities</i>	
41		Adapted from Cunha et al. (2015)	
42		$\rho_A=0.835$; $\rho_c=0.896$; $CA=0.826$; $AVE=0.743$	
43		The school that I study at ...	
44		promotes extracurricular activities (Ex. cultural events, competitions, tourist/historical	
45	attractions, etc.).	0.872	
46	carry out innovative projects that promote student learning.	0.907	
47	offers professional internship opportunities to students.	0.802	
48		<hr/>	
49	Perceived quality – Socio-contextual factor	<i>Future perspectives</i>	
50		Adapted from Cunha et al. (2015)	
51		$\rho_A=0.886$; $\rho_c=0.929$; $CA=0.885$; $AVE=0.813$	
52		Students who graduate from the school I study at have more opportunities ...	
53	accessing the job market.	0.908	
54	have a successful professional career.	0.931	
55	to be accepted into good colleges/universities.	0.865	
56		<hr/>	
57	Perceived quality –	<i>Status and social endorsement</i>	
58	Socio-contextual factor		
59			
60			

1			
2		Adapted from Wolters and Benzon (2013) and Paulino (2015)	
3		$\rho_A=0.938$; $\rho_C=0.946$; $CA=0.934$; $AVE=0.688$	
4		I believe studying to get a good job is helpful.	0.731
5		I try to convince myself that that task/subject can be helpful to me in the future.	0.868
6		I tell myself that that task/subject could be important to me.	0.863
7		What I learn at school is helpful throughout life.	0.844
8		The material I learn at school will be valid for my studies in the future.	0.738
9		I convince myself to work until I know the subjects well or can do a good job.	0.869
10		I think working hard is essential to improving my skills.	0.908
11		I remember that it is crucial to do my work and have my subjects up to date.	0.798
12			
13		<i>Normative commitment</i>	
14		Adapted from Adapted from Vieira (2014)	
15		$\rho_A=0.868$; $\rho_C=0.909$; $CA=0.866$; $AVE=0.714$	
16	Behavioural responses	I believe in the values and norms of this school.	0.883
17		I identify with the way things are done at this school.	0.832
18		I strive to fulfil the activities proposed by the teachers at this school, as I believe that this way, I will have excellent professional training.	0.813
19		I believe I will have excellent professional training after completing my course at this school.	0.851
20			
21		<i>Affective commitment</i>	
22		Adapted from Adapted from Vieira (2014)	
23		$\rho_A=0.745$; $\rho_C=0.849$; $CA=0.735$; $AVE=0.653$	
24	Behavioural responses	I have a friendship bond with several colleagues at this school.	0.755
25		I am recognised by faculty, staff and colleagues as a member of the academic community of this school.	0.832
26		I feel this school was an extension of my home.	0.834
27			
28		<i>Instrumental commitment</i>	
29		Adapted from Adapted from Vieira (2014)	
30		$\rho_A=0.850$; $\rho_C=0.899$; $CA=0.850$; $AVE=0.691$	
31	Behavioural responses	I think that if I left the school I study at, I would be lost as to what to do in my daily life.	0.794
32		One of the problems with leaving this school now would be the lack of immediate alternatives for transferring.	0.872
33		One of the problems with leaving this school would be losing subjects in the transfer process.	0.856
34		One of the problems of leaving this school would be delaying my course.	0.801
35			
36		<i>Behavioural commitment</i>	
37		Adapted from Adapted from Vieira (2014)	
38		$\rho_A=0.910$; $\rho_C=0.943$; $CA=0.909$; $AVE=0.846$	
39	Behavioural responses	For me, studying at this school has become routine.	0.913
40		Attending this school became a habit for me.	0.935
41		I am used to attending this school.	0.910
42			

Notes: Dijkstra-Henseler's rho (ρ_A); Jöreskog's rho (ρ_C); Cronbach's Alpha (CA); Average Variance Extracted (AVE).
Source: Research data.

Table II. Discriminant Validity: Heterotrait-Monotrait Ratio of Correlations (HTMT)

Constructs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. Location and accessibility	1,000																										
2. Reputation	0,375	1,000																									
3. Infrastructure	0,195	0,429	1,000																								
4. School director	0,289	0,453	0,567	1,000																							
5. Class director	0,351	0,459	0,418	0,353	1,000																						
6. Teachers	0,248	0,539	0,624	0,581	0,433	1,000																					
7. Employees	0,331	0,420	0,518	0,482	0,566	0,566	1,000																				
8. Services	0,331	0,475	0,774	0,620	0,499	0,654	0,639	1,000																			
9. Administrative organisation	0,282	0,461	0,629	0,827	0,421	0,650	0,509	0,739	1,000																		
10. Teaching methodology	0,332	0,545	0,653	0,648	0,504	0,765	0,543	0,722	0,766	1,000																	
11. Assessment criteria	0,295	0,559	0,598	0,647	0,491	0,731	0,531	0,683	0,746	0,853	1,000																
12. Socio-emotional skills (SES)	0,346	0,557	0,617	0,622	0,491	0,712	0,564	0,681	0,726	0,791	0,777	1,000															
13. School atmosphere	0,264	0,451	0,569	0,737	0,381	0,655	0,513	0,715	0,807	0,743	0,744	0,702	1,000														
14. Extracurricular activities	0,277	0,479	0,531	0,574	0,370	0,612	0,520	0,630	0,638	0,723	0,675	0,731	0,682	1,000													
15. Future perspectives	0,259	0,588	0,520	0,493	0,432	0,615	0,531	0,608	0,544	0,694	0,679	0,726	0,556	0,711	1,000												
16. Status and social endorsement	0,244	0,507	0,454	0,457	0,393	0,535	0,546	0,519	0,521	0,662	0,660	0,694	0,516	0,631	0,709	1,000											
17. Satisfaction	0,373	0,525	0,561	0,599	0,431	0,631	0,468	0,623	0,649	0,777	0,723	0,701	0,671	0,647	0,630	0,663	1,000										
18. Self-efficacy expectations	0,347	0,506	0,467	0,415	0,351	0,585	0,478	0,503	0,383	0,555	0,530	0,593	0,441	0,542	0,571	0,585	0,563	1,000									
19. Achievement goals – positive results	0,221	0,280	0,372	0,387	0,159	0,407	0,233	0,331	0,405	0,477	0,375	0,379	0,449	0,341	0,359	0,436	0,515	0,591	1,000								
20. Achievement goals – negative results	0,250	0,441	0,491	0,455	0,303	0,523	0,397	0,478	0,460	0,549	0,527	0,559	0,501	0,503	0,521	0,576	0,562	0,761	0,711	1,000							
21. Self-reinforcement	0,211	0,339	0,461	0,401	0,224	0,463	0,296	0,424	0,425	0,482	0,406	0,491	0,459	0,387	0,412	0,459	0,526	0,615	0,685	0,828	1,000						
22. Situational interest	0,222	0,332	0,507	0,467	0,216	0,530	0,323	0,461	0,491	0,540	0,436	0,514	0,536	0,393	0,443	0,464	0,551	0,604	0,725	0,767	0,931	1,000					
23. Value / Learning goals	0,337	0,496	0,548	0,526	0,347	0,604	0,486	0,564	0,492	0,638	0,582	0,661	0,572	0,559	0,629	0,620	0,661	0,870	0,629	0,856	0,830	0,845	1,000				
24. Normative commitment	0,359	0,506	0,588	0,660	0,472	0,716	0,575	0,683	0,696	0,820	0,749	0,757	0,733	0,684	0,683	0,725	0,834	0,690	0,591	0,668	0,614	0,677	0,790	1,000			
25. Affective commitment	0,352	0,427	0,560	0,557	0,440	0,592	0,531	0,665	0,597	0,723	0,650	0,696	0,619	0,557	0,599	0,623	0,792	0,625	0,583	0,573	0,601	0,638	0,714	0,892	1,000		
26. Instrumental commitment	0,282	0,335	0,422	0,413	0,293	0,450	0,347	0,445	0,478	0,558	0,520	0,429	0,508	0,422	0,390	0,438	0,597	0,424	0,504	0,528	0,483	0,561	0,548	0,696	0,571	1,000	
27. Behavioural commitment	0,239	0,408	0,402	0,353	0,266	0,461	0,406	0,479	0,430	0,519	0,452	0,585	0,396	0,532	0,564	0,558	0,512	0,640	0,387	0,560	0,482	0,482	0,601	0,662	0,579	0,583	1,000

Source: Research data

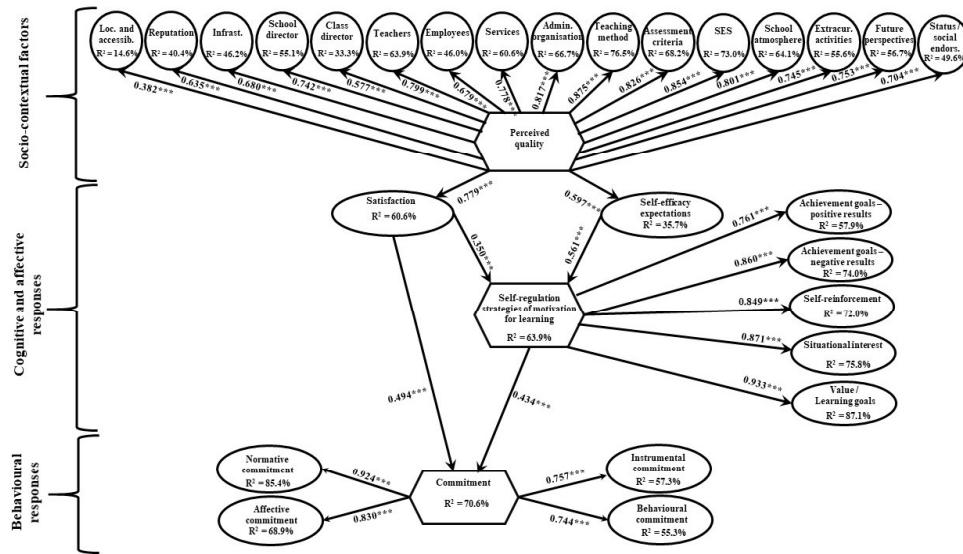


Figure 2. Structural model

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