

Intention to Adopt Cycling using the Modified Theory of Planned Behaviour

M.D.P.I. Jayasena and G.N. Samarasekara

Abstract: The popularity of cycling in Sri Lanka has been declining over the years, while its popularity as a form of micro-mobility is increasing in some countries. Efforts to encourage cycling should be based on a proper understanding of factors affecting the intention to cycle. This research uses modified Theory of Planned Behaviour (TPB) to explore the extent to which four socio-psychological constructs, namely, attitude, perceived behaviour control (PBC), subjective norm (SN) and environmental perception influence the intention to cycle. Using a modified TPB-based questionnaire survey, data related to the intention to adopt cycling and four TPB constructs were collected and analysed using Structural Equation Modelling (SEM) analysis. PBC showed a strong positive effect while attitude and SN did not have a significant influence on the intention to cycle. Cycling supportive infrastructure availability in Sri Lanka is less and, hence, individuals' perception on the environment was found to have a significant negative effect on the intention to adopt cycling. The findings of this research can inform policymakers and transport professionals in prioritizing strategies to enhance cycling in Sri Lanka in terms of improvements to cycling education, better cycling infrastructure and other programs of intervention.

Keywords: Cycling, Micro-mobility, Theory of planned behaviour (TPB), Structural equation modelling (SEM), Sri Lanka

1. Introduction


Bicycle is an inexpensive and accessible transport mode, and a viable mode for people with limited financial resources [1]. Cycling is an environmentally, socially, and economically sustainable transportation mode [2], which is affordable and easily assessable and requires little training to control [3]. As a form of micro-mobility, it offers economic benefits for individuals and communities. Owning and maintaining a bicycle is more affordable than owning a car, reducing transportation costs for individuals [4]. Cycling infrastructure improvements should enhance safety and accessibility for all users, including children, older adults, and people with disabilities [1]. Cycling associated with sedentary lifestyles can reduce healthcare costs and promotes active transportation, resulting in improved productivity [5]. It reduces oil dependence and traffic congestion [6], making it a widely preferred sustainable mode of transportation.

Sri Lanka is undergoing rapid urbanization, with increasing levels of personal vehicle ownership and usage, and consequent environmental degradation, including air pollution and carbon emissions [7]. In response, policymakers, urban planners, and transportation experts have recognized the

importance of promoting cycling as a sustainable and healthy mode of transportation to reduce congestion and improve public health [8]. A substantial component of demand for mobility is for short distance trips such as running errands or shorter commuting to work or school. The number of people using cycles for these trips is increasing due to the recent economic crisis. With the recent economic crisis and resultant fuel crisis, inflation in Sri Lanka has drastically increased. The recurrent cost of all modes except cycles has doubled [9]. Cost increases make people reevaluate their transportation options, resulting in shifting towards more economical modes, at least for short distances. Policymakers should take necessary actions to encourage and facilitate the necessities for such shifts towards cycling. This requires a proper understanding about factors


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that support the intention towards cycling. This research aims to identify the factors influencing the intention to adopt cycling using a widely used behavioural theory, namely, Theory of Planned Behaviour (TPB).

2. Literature Review

2.1 Benefits and Challenges for Cycling

Opportunities are the factors that make people to cycle. Making cycling safe and convenient encourages cycling. Separate cycling facilities along heavily travelled roads and at intersections, combined with extensive traffic calming of residential neighbourhoods, relatively stress-free cycling routes, extensive bicycle parking, integration with public transport, and training of both cyclists and motorists promote cycling [10]. Unstable weather conditions, topographic conditions with slopes, lack of cycle lanes and parking facilities, and vehicle traffic [11] are some factors that act as challenges for the use of cycling as a transportation mode in many countries.

2.2 Influence of Psychological Factors on Cycling: Theory of Planned Behaviour

Social stigma affects personal attitudes towards cycling. There is a perception among some individuals that cycling is associated with poverty or lower social status [12]. This stigma creates negative attitudes discouraging individuals from considering cycling as a viable transportation option. Personal appearance and the perception of maintaining a certain image also influence attitudes towards cycling. Some individuals perceive cycling as incompatible with maintaining a desired personal appearance, such as arriving at their destination without sweating or maintaining a professional appearance [13]. Lack of social acceptance of cycling acts as a significant challenge. Negative attitudes and lack of acceptance from others, such as friends, family, or colleagues, discourage individuals from embracing cycling as a mode of transportation [3]. Cycling is a transportation mode and a form of physical activity which has a range of factors act as opportunities and challenges which affect peoples' intention to adopt cycling. There are psychological factors, sociodemographic factors, physical and natural environmental factors. Among these factors, psychological factors are most fundamental and include individuals' attitudes towards the behaviour and perception controlling behaviours [6].

Researchers have traditionally used different models to predict the human behaviour based on different factors. TPB proposed by Ajzen in 1985 has been widely used by researchers to explain how psychological factors predict human behaviour based on individuals' intentions to behave [14]. This is a theory that has been widely used in many sectors including from healthcare field, politics, waste reduction and even transport.

TPB could be applied to understand the underlying motivations of different types of human behaviour under volitional control [14,15]. It suggests that people's actions are determined by their intentions, which are influenced by three main factors, namely, attitude, subjective norm (SN), and perceived behavioural control (PBC). TPB model predicts human behaviour based on an individual's intentions. According to Ajzen (1991), TPB could be modified by incorporating additional factors [15] such as environmental influences, past experiences, or emotions to provide a more comprehensive understanding of human behaviour.

Research work on determinants of cycling behaviour in Sri Lanka has focused on cycle friendly infrastructure, negative attitudes of cycling within the community and the overall lack of acknowledgement of cycling. In contrast, a few studies have focused on other factors affecting cycling in Sri Lanka. The existing studies are mainly focused on cycling infrastructure facilities [12, 16-20] and cycling as a sustainable transportation mode [7, 9, 21]. Few previous works have successfully used the TPB model to explore cycling behaviour [6]. Thus, this study aims to identify the determinants of cycling behaviour in Sri Lanka using appropriate TPB constructs.

2.3 Conceptual Framework to Predict the Cycling Behaviour in Sri Lanka using TPB

Since cycling is a behaviour that is largely within individual control [6], TPB is a potential theory to explain the influence of psychological factors on intention to adopt cycling. Specifically, the study examines the population attitudes towards cycling, their perceived behavioural control regarding how easy or difficult it would be to engage in cycling, and the subjective norm (SN) which refers to the social perception or approval/disapproval from significant others regarding cycling.

Attitudes of TPB refers to the outcomes of the behaviour and the personal values of these outcomes [22]. In considering cycling, attitudes are the positive or negative evaluation of the outcome of adopting cycling as a mode of transportation. The attitudes which were examined here are healthy mode, provide exercise, enjoyable, convenient, comfortable, fast and safe transportation mode with no environment pollution. Individuals' intention to adopt cycling is stronger when the attitude towards the cycling behaviour is more favourable [14].

PBC of TPB refers to the individuals' perception of the ease or difficulty of adopting the cycling behaviour. This describes the factors such as ability to cycle and availability of time and cost for the cycling behaviour. In previous studies, the PBC factors that were examined are little training required ability to cycling, feel confidence about cycling ability, and cycling fits with lifestyle [6].

SN of TPB refers to the subjective norms held by society or significant people which influence the behaviour. People may adapt their behaviours with respect to the social acceptance. Individuals' intention to cycle may influence with approval of society and family. Therefore, SN constructs include family encouragement, colleagues/friends' encouragement, society's belief as poor transportation mode and less prestigious mode.

Cycling is an activity influenced with natural and built environment attributes [23, 24]. Natural environmental factors are weather conditions such as precipitation and high-temperature conditions. Built environment factors are presence or lack of cycle lanes, connectivity of cycle lanes along the road, road intersection facilities, streetlights, traffic lights and other cycle infrastructure facilities. TPB was modified by combining the perception of the environment with other TPB constructs and used in this study to identify the determining factors and investigate individuals' intention to adopt cycling as a transportation mode in Sri Lanka. In a general analysis, the more favourable the attitude and SN with respect to a behaviour, and the greater the PBC, the stronger an individual's intention to perform the behaviour under consideration. Considering this study, intended cycling adoption is increased with favourable attitude and SN and greater PBC variables. Thus, this study used the conceptual model presented in Figure 1.

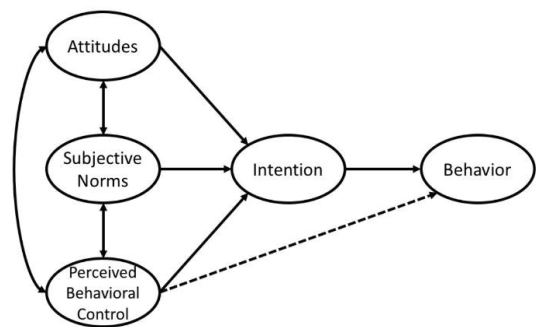


Figure 1 - Conceptual Model used in TPB [3]

Figure 1 shows the conceptual framework used in this research which was developed using TPB.

2.4 Intervention to Promote Cycling

Worldwide, many interventions have been proposed to promote cycling. Attempts to promote a modal shift towards sustainable modes have traditionally focused on physical infrastructure changes. However, culture and behaviour may have a significant contribution to promoting cycling. Social interventions to support cycling can be proposed through evidence-based behaviour changes. Based on an extensive literature review Savan et al. [25] proposed five behavioural change strategies to design successful cycling programs. These strategies are strategic population segmentation, identification and removal of barriers to change, use of commitment strategies, tactics to sustain behaviour changes and ongoing social support through modelling and community involvement. Further, authors have identified a series of cycling options/interventions which included open streets, safe routes to schools, cycle-to-work schemes, cycle training and education, cycle promotion events, bicycle share programs, route planning tools and advocacy. Greater success can be expected when soft programs such as promotion and education programs are combined with hard policies such as building cycling infrastructure.

2.5 Research Aim

This study aims to address the research gap in the current literature regarding individuals' behavioural influences on intention to adopt cycling in Sri Lanka. Accordingly, the study aims to investigate the effect of the four psychological constructs, attitudes, subjective norms, perceived behavioural control and perception of environment on intention to adopt cycling in Sri Lanka.



3. Methodology

TPB variables were identified through an exploratory qualitative study, in which additional variables influencing cycling were identified to have a comprehensive representation of the psychological factors affecting the Sri Lankan cyclists' behaviour. The variables were identified under the four TPB constructs attitudes, subjective norms, perceived behavioural control, and perception of environment. The last was included since several studies indicated the influence of variables related to perception of environment. The dependent variable of the study, 'cycling intention', was measured using three indicator statements. These variables were used as evaluation items under each of the TPB constructs and a modified TPB-based questionnaire was designed.

Participants rated their level of agreement for each variable statement using 5-point Likert scale varying from 'Strongly Disagree' (1) to 'Strongly Agree' (5) in the questionnaire [26]. Those who have cycled at least once in the last 6 months were considered cyclists. 300 residents who responded to a voluntary participation request participated in the questionnaire shared in an online platform.

4. Results and Discussion

The sample consisted of 65% cyclists (56% males) and had an average of 29 years. Descriptive analysis of the responses of psychological variables are shown in Table 1.

4.1 Specification of SEM

Multiple observed variables of each of the TPB constructs were used to model the intention to cycle. Therefore, SEM was used as the preferred technique over standard regression models due to the complexity involved. This technique enables the statistical modelling and testing of complex phenomena, to examine the validity and reliability of the observed model parameter estimates [27]. To understand the population's intention to adopt cycling, a two-stage approach was employed. First, a Confirmatory Factor Analysis (CFA) was used to specify the measurement model. Subsequently, a structural model was specified. Specified models were assessed using the goodness-of-fit indices used in SEM analysis to obtain the extent to which the hypothesized relationships among the TPB constructs and their corresponding observed indicators fit the data.

4.1.1 Specification of Measurement Model: Confirmatory Factor Analysis

The path diagram resulting from the SEM (Figure 2) illustrates the confirmatory factor analysis (CFA) model, which presents the three latent constructs of the TPB: attitude, PBC, and SN. Each latent construct is represented as a circle, while the observed indicator variables are depicted as rectangular boxes with arrows pointing from the latent construct to the corresponding indicator variables. The double-pointed arrows indicate the assumed feedback relationships between the three latent constructs, indicating their influence on each other. The fitness between the measurement model and the observed data was evaluated using prescribed model identification criteria [27]. Results of the model identification indices indicate that the confirmatory factor analysis (CFA) model was identified, suggesting that hypothesized direction of effects among the variables in the model is supported by the data. The measurement model comprises latent variables, representing unobserved constructs of the TPB, along with their corresponding observed indicator variables. The scores of belief statements were multiplied by the scores of their corresponding outcome evaluation items to obtain a composite variable for each belief item [28].

The data were normally distributed and therefore, maximum likelihood estimation method was chosen over other estimation methods [6]. The parameters which were estimated using maximum likelihood (ML) method show a positive correlation between participants' attitude and PBC, and also SN and PBC. Attitude and SN show negative correlation which is not that strong. The squared multiple correlation (SMC) estimates of the confirmatory factor analysis (CFA) were used to evaluate the contributions of the observed variables to each of the latent constructs they represent. As a reliability measure, the squared multiple correlation (SMC) is scaled between 0 and 1. A value closer to 1 indicates a better measure of the underlying latent variable of interest. The SMC results which are shown on the top left of the rectangles containing indicator variable in Figure 2 shows that SMC ranges between 0.01 and 0.71 for attitudinal variables, 0.13 and 0.65 for SN indicator variables and 0.05 and 0.52 for PBC indicator variables. Statistically significant ($p < 0.01$) squared multiple correlation (SMC) values were observed for all measurement model indicators.

4.1.2 Specification of the Structural Model

The effect of the TPB constructs which were specified in CFA and, additionally, the perception on the environment were modelled in the structural model. The path diagram (Figure 2) illustrates the Structural Equation Model (SEM), which presents the effect of the three main TPB constructs and modified construct perception on the environment on intention to cycle. Each of these three TPB constructs and respondents' perception of their environment were hypothesized to affect the intended adoption of cycling directly. Intention was measured by three indicator variables which are "intend to cycle", "willing to make changes to daily routine to incorporate cycling" and "motivated to try cycling". All four TPB constructs have directly affected the intended cycling adoption. First, fitness between the measurement model and observed data was evaluated using same goodness-of-fit indices used in measurement model and the model was identified, suggesting that the hypothesized direction of effects among the variables in the model is supported by the data.

The parameters which were estimated using maximum likelihood (ML) method show path co-efficient on arrows directed from independent variables to dependent variable. The path coefficients, also known as regression weights, are represented by arrows directed from the independent variables to the dependent variable (cycling adoption) in Figure 2. The estimated path coefficients of the structural model are shown in Table 2, while Table 3 provides the correlation and covariance estimates of the model.

4.1.3 Effect of Attitudes, SN, PBC and Environment Perception on Intention to Cycle

The model's SMC, which is equivalent to the R^2 in standard regression analysis, was 0.59, meaning that variables included in the SEM account for nearly 59% of the variance in the intended adoption of cycling, which means attitudes, subjective norm, perceived behavioural control and perception of environment account for 59% of the variance of intended cycling adoption.

The result shows that PBC has a strong direct effect on participants' intended cycling adoption with 0.72 path co-efficient which is the largest among all TPB constructs. This indicates that, an increase of one unit in participants' perceived behavioural control, their intended adoption of cycling increases by 0.72. Among

the variables which measured PBC, *cycling fits well with the lifestyle* and *having enough time to travel by bicycle* show strong positive contribution than other variables. Also, other PBC measured variables which are *little training required control ability*, *feel confident on cycling ability*, *having initial investment to get a bicycle* and *low transportation cost* show a positive contribution to the cycling intention.

Attitude and SN as TPB constructs did not show a statistically significant effect on intended cycling adoption. Previous work [16] has suggested that social stigma as a cause for less popularity of cycling. However, this study did not support such findings. The recent interest towards cycle and other modes of micro-mobility is a worldwide trend [29]. According to recent observations on cyclist profiles, many new cyclists such as professionals, and leisure riders are now seen on Sri Lankan roads in addition to those who have been using the bicycles for commuting or selling [9]. Therefore, it could be assumed that subjective norms, especially social pressure, may no longer be a major influential factor for cycling in Sri Lanka.

In addition to the above three main TPB constructs, the effect was measured for perception of the environment which is the modified TPB construct. It showed a negative influence with -0.33 path co-efficient. The mean values of the agreement level of variables which measured the environmental perception as supportive of cycling showed values less than 3. It implies that the participants' perception of their environment is not as being supportive of cycling. Cycling supportive infrastructure availability in Sri Lanka is less, hence the environmental perception negatively influences on cycling adoption. All the variables measuring the perception on environment indicated that the lack of dedicated cycle lanes, cycle lane connectivity, safe parking facilities, road intersection facilities, streetlights, and also having heavy traffic, fast moving vehicles negatively affect the intention to cycle.

A study similar to the present study, to explore the adults' intention to adopt cycling to work, was conducted in Ghana by Acheampong [6]. The author found similar outcomes where the PBC and perception of the environment had an influence on cycling adoption while attitudes and SN did not have a significant influence.



Table 1 - Descriptive Analysis of Participants' Evaluation of Variables (N = 300)

Variables	Mean	SD	
A1	Cycling is a healthy way to travel.	4.48	0.74
A2	Cycling is a good way to get exercise.	4.55	0.68
A3	I believe that cycling is an enjoyable activity.	4.33	0.75
A4	Cycling is a convenient transportation mode.	3.49	0.95
A5	Cycling is a comfortable transportation mode.	2.78	0.95
A6	I can travel fast by using cycling as my travel mode.	2.79	1.02
A7	Cycling is a safe activity with lower risk of accidents.	2.87	0.98
A8	Cycling does not contribute to the environment pollution.	4.45	0.92
SN1	My family members will not encourage me to cycle.	2.68	0.99
SN2	My colleagues/ friends are not cycling.	3.00	0.99
SN3	Other people will think I am poor if I cycle.	2.35	1.07
SN4	Using a cycle for transportation is not prestigious in my community.	2.66	1.11
PBC1	Little training required to control a bicycle.	3.60	0.88
PBC2	I feel confident in my cycling abilities.	4.04	0.91
PBC3	Cycling fits well with my lifestyle.	3.43	0.92
PBC4	I have enough time to travel by bicycle.	2.89	1.10
PBS5	I have initial investment to get a bicycle.	3.28	1.07
PBC6	My transportation cost is low if I travel by bicycle.	3.92	0.91
EP1	There are dedicated spaces for cyclists in the road.	2.30	1.04
EP2	There is connectivity for the cycles to continuously travel along selected roads.	2.40	1.08
EP3	There are safe and secure facilities to store my bicycle in my destination.	2.63	1.09
EP4	There are road intersection facilities which provide safety for cyclists.	2.38	1.01
EP5	There are streetlights at night in my area.	3.00	1.09
EP6	There is no heavy traffic on routes I bike.	2.73	1.01
EP7	There are no fast-moving motorized vehicles on the road.	2.11	1.02
EP8	There is shade against sunshine and bad weather when cycling.	2.18	0.98
I1	I intend to cycle more often in the future.	3.32	0.96
I2	I am willing to make changes to my daily routine to incorporate cycling.	3.41	0.92
I3	I am motivated to try cycling as a mode of transportation.	3.31	1.01

A1-8: Attitudes; SN1-4: Subjective Norms; PBC1-6: Perceived Behavioural Control; EP1-8: Perception of Environment; I1-3: Intention

Table 2 - Maximum likelihood Parameter Estimates

	Unstandardized	S.E.	Standardized	C.R.	P
Cycling_Adoption <--- Subjective_Norm	-0.105	0.056	-0.122	-1.867	0.062
Cycling_Adoption <--- Attitude	-0.045	0.382	-0.010	-0.117	0.907
Cycling_Adoption <--- Environmental_Perception	-0.462	0.086	-0.332	5.361	***
Cycling_Adoption <--- Perceived_Behavioral_Control	2.950	0.971	0.716	3.039	0.002

S.E - standard error, C.R. - critical ratio, ***Significant at p<0.01

Table 3 - Maximum Likelihood Estimates of Covariance and Correlations

	Covariance	S.E.	Correlations	C.R.	P
Subjective_Norm <--> Perceived_Behavioral_Control	0.039	0.018	0.233	2.199	***
Attitude <--> Subjective_Norm	0.000	0.011	-0.003	-0.046	***
Attitude <--> Perceived_Behavioral_Control	0.018	0.008	0.573	2.369	***

S.E - standard error, C.R. - critical ratio, ***Significant at p<0.01

Although attitudes and SN did not show a significant direct effect on the intention to cycle, both these have shown a positive correlation to the PBC. This indicates the possibility of encouraging PBC through the attitudes and SN. Accordingly, a strong positive correlation with 0.57 correlation co-efficient was found between participants' attitude and PBC. Similarly, SN and PBC also showed a positive correlation with 0.23 correlation co-efficient. These correlations show that perceptions of significant others and wider society towards cycling and individual attitudes towards cycling may affect the perceived behavioural control with respect to cycling. Further, as per the results, there is no correlation between attitudes and SN.

Many previous studies using TPB have found strong influence of PBC on cycling intention [6, 30, 31, 32]. They suggest that participants' belief that cycling as an easy activity to perform and confidence in their ability to ride the bicycle, have a strong effect on cycling intentions. Further, in many studies, the subjective norms and attitudes were not identified to have a strong influence on TPB in these studies proving a weaker influence from those two factors.

4.1.4 Intervention to Promote Cycling based on PBC and Environment Perception

According to the outcomes, PBC was highly correlated to two factors, Cycling fits well with my lifestyle and I have enough time. Those who have time to engage in cycling can be motivated in efforts to promote cycling. These two factors indicate that those who have a lifestyle which can accommodate cycling and those who have time to engage in cycling should be focused on interventions to promote cycling. Previous research work on the profiles of riders has identified eight categories of cyclists [6]. Among them Commuters - General; Leisure/sports riders; Long-term riders - commuters; Long-term riders - sellers; Good carriers have been identified to have high potential to continue their cycling in regular circumstances. Interventions to promote cycling can begin by facilitating their needs since cycling seems to fit well with their lifestyle.

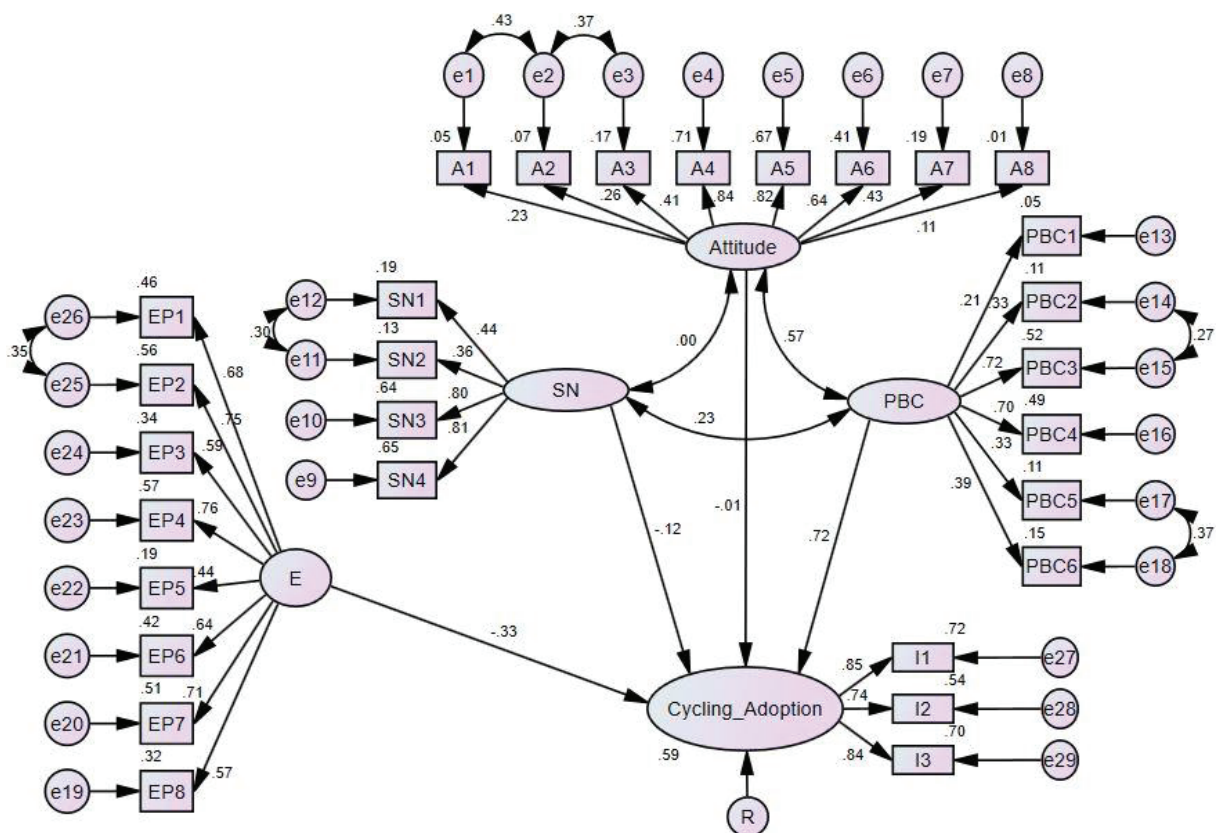


Figure 2 - Path Diagram of the Identified SEM Showing the Effect of Latent Constructs and Observed Variables Attitude, Perceived Behavioral Control (PBC), Subjective Norm (SN) and Perception on Environment (E) on Cycling Adoption Intention



In addition, the other PBC variables, namely, little training required to control ability, feel confident on cycling ability, having initial investment to get a bicycle and low transportation cost have also shown that a positive correlation can also be focused on interventions. Training sessions for cycling or cycle days, tax concessions or other measures to decrease the initial cost of cycling are important operational and policy in this regard.

The modified TPB construct, perception of the environment, indicates a series of measures that can be taken to encourage cycling. Improving the physical environment has been discussed by many researchers as measures to improve cycling.

A previous local study by Bandara et al. [16] proposed a similar recommendation to improve cycling in terms of wide cycle lanes, intersection treatment as per the standards used in developed countries, proper bicycle parking facilities, raised bicycle lanes separated from motorized way, and green shelter provided for the bicycle lanes [16]. Studies from other countries also highlight the relationship of availability of traffic lights, heavy traffic, and congested streets [6] to have positive influences on cycling behaviour. Traffic flow is regulated at intersections with traffic signals, and it provides safety for cyclists. Also, traffic signals and traffic calming measures provide positive effect on cycling [28].

Accordingly, improvements to have safe parking facilities at the roadside, increasing road network connectivity at least in few selected roads, increasing cyclist safety at intersections, measures to have cycle lanes or to have a safer shared space in road with motorized vehicles and pedestrians can be proposed as interventions with a high potential based on the individual correlation values in Figure 2. Also providing dedicated cycle lanes, safe parking, and policy measures giving priority to cyclists should be adopted.

5. Conclusion

This study investigated and explored determinants of individuals' intention to adopt cycling in Sri Lanka based on a widely used theory namely TPB. Results of the study have confirmed that the TPB components with the addition of physical and natural environmental perception, are useful in predicting the intention to adopt cycling, offering essential

insights for interventions aimed at promoting cycling in Sri Lanka. Accordingly, the perceived behavioural control and environmental perception were identified as key constructs that influence the intention to adopt cycling. However positive attitudes towards cycling and subjective norms did not have a direct significant impact.

The study reveals that perceived behavioural control emerges as the most influential factor with individuals who perceive cycling as fitting well with lifestyle and possessing enough time to cycling adoption. Based on these insights, the study recommended interventions including the development of dedicated bicycle lanes, safe crossing behaviour at intersections, safe parking facilities and bicycle days focusing commuters and leisure riders. New cyclists represent a significant target group for interventions, hence, providing support programs such as training and safety awareness sessions, tax incentives and discounts for bicycle purchase can lower barriers to entry and develop a sense of confidence in cycling.

Based on these interventions, study offers a range of recommendations for policymakers, urban planners and road officials in implementing these recommendations. Urban planners should focus on short-term actions on improvements such as enhancing signage, road markings, medium-term initiatives involve establishment of dedicated cycle lanes, shelter along cycling routes, and long-term planning on comprehensive cycling network designs, separated cycle lanes, safe intersection facilities and safe and secure parking facilities. Policymakers should involve policy initiatives to allocate funding for projects aimed at enhancing cycling infrastructure and public awareness campaigns which can further promote the benefit of cycling and develop positive public perception towards cycling.

This study contributes to the understanding of the factors influencing cycling intention in Sri Lanka and provides an outline for policymakers and stakeholders to promote cycling effectively. By implementing the recommended interventions and promoting cycling, Sri Lanka can realize the positive effects of cycling.

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