

## Development and Validation of Measurement Scale for Perceived Ease of Doing Business

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### Keywords:

Ease of Doing Business, Measurement Scale Development, Entrepreneurship, Scale validation

### ABSTRACT

This study has designed to develop and validate measurement scale for perceived ease of doing business. In the first phase extensive literature review was carried out for identification of various dimensions and items for the construct of perceived ease of doing business. Later Survey based research technique has been adopted for data collection. Data for analysis has been collected from 385 respondents in small and medium enterprises. Smartpls software has been used for assessing validity and reliability of scale. The validity of measurement scale has been verified by confirming its face validity, content validity, Convergent Validity, Discriminate Validity, and Indicator Reliability. The reliability of scale has been verified through Cronbach's Alpha. Results of the study suggest that the developed and refined scale is valid and reliable. Perception of an entrepreneur regarding ease of doing business is vital for entrepreneurial intentions and entrepreneurial actions in an economy. The developed scale may be used for collecting data about perceived ease of doing business in an economy. The developed scale can be used by research scholars and policy makers for collecting data about perceived ease of doing business in an economy.

## INTRODUCTION

Scholars, business experts, Academicians and economics experts have been trying to develop framework for business development in economies. One method to achieve this goal is to assess some aspects of economy such as financial systems of countries, access to soft loans environment for small businesses, or other factors which can affect business development. Some institutions have opted for different mechanism. These institutions have developed certain indicators to combine the more or lesser ease of operating business and competitive environment, or in other words they link business regulatory environment to level of competition in an economy (Benjamin et al., 2010). The ease of doing business project of world bank has opted for almost similar philosophy. World bank has been publishing ease of doing business report since 2004. The main indicator of this index is ease of doing business. The main indicator is based on ten sub indicators i.e. starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency (Besley, 2015).

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Relocation of manufacturing firms depends on production facilities and perceived ease of doing business (Yang, 2016). To keep public debt under control, every government must attract more investment and develop a favorable corporate culture with a great perceived ease of doing business. Consistent policy that improves a country's competitive advantage can help to consolidate economic growth, per capita GDP, and the ease of doing business perception, while also keeping unemployment, inflation and taxes in control (Poufinas et al., 2018). The importance of improvement in regulatory infrastructure of economies cannot be denied but also the important factor for entrepreneurial intension is the perception of entrepreneurs regarding ease of complying with the regulatory infrastructure.

Most of the studies regarding ease of doing business have been based on secondary data of world bank. There is need for operationalization of construct of perceived ease of doing business for measuring perception potential and existing entrepreneurs. Six most relevant indicators of ease of doing business have been taken to access perceived ease of doing business of for small and medium enterprises, as per recommendation of Experts. The expert panel suggested that the opted indicators were of vital importance for measuring ease of doing business in an economy. And most issues which can influence business environment in an economy have been covered by opted indicators. The opted indicators lead to variables; i.e., Perceived Ease of Dealing with Construction Permits, Perceived Ease of Getting Electricity, Perceived Ease of Registration of Property, Perceived Ease of Enforcing Contracts, Perceived Ease of getting Credit for the Business, Perceived Ease of Paying Taxes, Perceived Ease of Trading Across Borders (Export/Import).

## **LITERATURE REVIEW**

### **Perceived Ease of Doing Business Construct**

#### *Perceived Ease of Registration of Property*

Djankov et al. (2020) by citing world bank doing business database have analyzed three variables for ease in transfer of title i.e. the number of procedures in registering property, the duration of the whole process of registration, and the total cost to transfer a property title from a private seller to a private buyer. Along with that quality of land administration ease of procedure are also a used by word bank as measure of ease of registering property.

#### *Perceived Ease of Dealing with Construction Permits*

Gete (2014) by citing doing business database and enterprise survey has mentioned cost, number of procedures and Time as indicators of ease of dealing with construction permits. Along with that items related to quality control have been adopted form doing business methodology i.e. quality of building regulations and transparency in system and quality controlling of construction by regulators; insurance regimes; and availability of professional certifications. Churghulia (2019) while discussing Solutions to the Legislative and Practical Problems of getting Construction Permit has stated that getting information easily

about procedures and laws is very important hence the item ease of access to information is added to the scale.

#### ***Perceived Ease of Getting Electricity***

Geginat & Ramalho (2018) have constructed variable of getting electricity with items i.e. the number of procedures in getting electricity connection, the duration of process and total cost. Quality of electricity, electrification rate (ratio of the population linked to electricity system). The Perceived ease of getting electricity is operationalized into mentioned items for this study.

#### ***Perceived Ease of Getting Credit***

There are majorly two perspectives on factors influencing volume of private credit a financial system offers to organizations and individuals. The power of creditors, according to the first perspective, is what matters for the possibility of private credit. Creditors are more likely to offer loans when they have power to more effectively force repayment, seize assets, or even takeover ownership of the company (Djankov et al., 2008). These power theories of credit have been formalized by researches i.e. (Aghion & Bolton, 1992; Hart & Moore, 1994, 1998; Townsend, 1979).

According to the second point of view, information is important in loans. Creditors give more loan when they know more about borrowers, their repayment capacity etc. (Jaffee & Russell, 1976; Stiglitz & Weiss, 1981). Appropriate measure for evaluating ease of getting credit is the perception of manager about ease of accessing bank financing in an economy (Erdogan, 2019). Hence the items included in scale are based on perceived ease for enforcing repayment of debt, ease of access to information, ease in access to bank financing, and prioritizing in liquidating.

#### ***Perceived Ease of Paying Taxes***

Mustapha & Obid (2015) have analyzed tax service quality by assessing moderating effect of Perceived Ease of Use of the Online Tax System. They have operationalized Ease of Use of the Online Tax System Perception into five items. These items have been included in the survey questionnaire for the study. The items include ease of using filling tax return, ease in filing income tax etc. Further the items identified by Djankov et al. (2010) have been included i.e. number of tax payments made by a taxpayer, the time taken by procedure of tax compliance and obviously the tax rate.

#### ***Perceived Ease of Trading Across Border***

Djankov, et al. (2010) in their article “Trading on Time” have discussed that the main determinant for ease of international trade is the time which is taken in transporting goods. So he has identified two main items of ease of international trade i.e. Time and Cost of trading. Wilson et al., (2005) while evaluating the benefits of trade facilitation have identified four sets of trade facilitation effort i.e. port efficiency, custom system, regulations and e-business infrastructures. Based on mentioned literature the identified items were added to the scale.

### *Perceived Ease of Enforcing Contracts*

First, variable is the time it takes to enforce a contract i.e. The variable is the number of calendar days taken between filing of the action in court and the final determination and, in relevant case, the payment. The second metric for contract enforcement is the number of processes, which comprises the steps for filing the case, the steps for trial and judgement, and the steps for enforcing the judgement. The third contract enforcement metric is the cost of enforcement, which is calculated as a percentage of the claim and comprises three types of payments: court charges, enforcement costs, and lawyer fees. (Djankov et al., 2003). The quality of contract enforceability is dependent on the value of legal system of a state (Spamann, 2010). Hence last item for the variable perceived ease of enforcing contracts is the quality of legal system in a country.

### **RESEARCH METHODS**

For development of scale for measuring perceived ease of doing business initially extensive literature review was carried out for selection of items which can depict perception of an entrepreneur regarding ease of doing business. After that sub constructs were developed for Perceived Ease of Dealing with Construction Permits, Perceived Ease of Getting Electricity, Perceived Ease of Registration of Property, Perceived Ease of Enforcing Contracts, Perceived Ease of getting Credit for the Business, Perceived Ease of Paying Taxes, Perceived Ease of Trading Across Borders, based on items selected through literature review.

Basically the objective of content validity is to explain a concept's domain and to determine if the measure appropriately characterizes the domain. (Bollen, 1989) and is guaranteed by the literature overview (Gómez et al., 2004). From the literature review items were identified that could accurately represent the domain of the property being measured.

Face validity implies that the items are designed to measure a concept, and on the surface, does it seems that they do so (Sekaran, 2003). In order to conduct face validity, the instrument is shown to some target respondents and their opinion are sought (Hair et al., 2007). Consultations were made with a panel of experts in order to make a judgment on the appropriateness items chosen to be measured. Five qualified and experienced doctors were selected for confirming validity of the questionnaire. The Items of the scale were verified to be valid for measuring the concerned variables.

Positivist approach has been adopted for this study. To test the conceptual model and associated hypotheses, data was collected form 385 managers of small and medium enterprises of Pakistan through survey questionnaire (Cochran, 1963). Further SmartPLS software was used for analyzing validity and reliability of the scale.

## FINDINGS & DISCUSSION

### Indicator Reliability

The aim of evaluating indicator reliability is to determine how well a variable or group of variables is consistent with what it is supposed to measure (Urbach and Ahlemann, 2010). The significance of indicator loadings is suggested to be at least at the 0.05 level, with factor loadings of 0.7 (Chin ,1998b) still further studies assert that, factor loading estimates can be between 0.5 and 0.7 (Hair et al., 2010). Item with less than 0.6 loadings were removed initially and analysis was carried out again. In the *Table 1* it is clear that most factor loadings are greater than (0.7) and all factor loadings are greater than (0.6).

**Table 1. Factor Loadings**

	Perceived Ease of Dealing with Construction Permits	Perceived Ease of Enforcing Contracts	Perceived Ease of Getting Credit	Perceived Ease of Getting Electricity	Perceived Ease of Paying Taxes	Perceived Ease of Registering Property	Perceived Ease of Trading across Borders
PEDCP1	0.763						
PEDCP2	0.768						
PEDCP3	0.736						
PEDCP4	0.743						
PEDCP5	0.714						
PEEC1		0.86					
PEEC2		0.928					
PEEC3		0.935					
PEEC4		0.907					
PEEC5		0.902					
PEGC1			0.652				
PEGC2			0.894				
PEGC3			0.863				
PEGC4			0.909				
PEGC5			0.733				
PEGE1				0.856			
PEGE2				0.887			
PEGE3				0.845			
PEGE4				0.84			
PEGE5				0.722			
PEPT1					0.764		
PEPT2					0.738		
PEPT3					0.748		
PEPT4					0.791		
PEPT5					0.743		
PERP1						0.636	
PERP2						0.882	
PERP3						0.901	
PERP4						0.867	
PERP5						0.884	
PETAB1							0.853

PETAB2	0.716
PETAB3	0.878
PETAB4	0.743
PETAB5	0.619

### Reliability

Reliability test is one of the most important tests in social research as its functions is to ensure that the measurement used in the study is measuring true value and it is error free to an acceptable level (Ariyaratne, 2014). When a construct has higher Cronbach’s alpha value, it shows that the items of that construct is having sale meaning and range (Cronbach, 1971). The range of Cronbach alpha ranges from .00 to 1.00. Value of 0.70 is considered to be the minimum acceptable value for a scale to be reliable (Nunnally, 1978).

**Table 2. Construct Reliability and Validity**

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Perceived Ease of Dealing with Construction Permits	0.82	0.902	0.862	0.555
Perceived Ease of Enforcing Contracts	0.947	0.973	0.959	0.822
Perceived Ease of Getting Credit	0.874	0.923	0.908	0.666
Perceived Ease of Getting Electricity	0.888	0.896	0.918	0.692
Perceived Ease of Paying Taxes	0.815	0.827	0.87	0.573
Perceived Ease of Registering Property	0.891	0.898	0.922	0.705
Perceived Ease of Trading across Borders	0.832	0.894	0.876	0.589

The result in *Table 2* suggest that Cronbach Alpha reliability coefficient had an acceptable reliability ranged from 0.815 to 0.947. It was in line with the criterion that a Cronbach Alpha is acceptable if more than 0.7 (Hair et al., 2010). Thus, the reliability for this scale is considered as within acceptable limits.

### Construct Validity

Construct validity refers to how well the items of construct measure the construct that they were meant to measure. Construct validity of the scale was validated by examining convergent and discriminant validity (Taherdoost, 2016).

### Convergent Validity

The average variance extract (AVE) is the most commonly used measure to establish convergent validity at the construct level, which is equivalent to the commonality of constructs. An established rule of thumb is that the AVE value should be 0.50 or greater, which means the constructs explain more than half of the variance of its indicator (Fornell & Larcker, 1981; Hair et al., 2010). As shown in the *Table 2* all AVE values are higher than 0.50. Furthermore, the results of Cronbach’s Alpha and Composite Reliability as shown in *Table 2* also confirm the validity of measurement instrument.

## Discriminant Validity

Discriminant validity examines if the items unexpectedly measure anything other than the intended construct. Cross-loading is produced by connecting the component scores of each latent variable to other items in the scale. When the loading for each indication is larger for its designated construct in the scale than for any other construct, it may be concluded that the indicators for the various constructs are not interchangeable (Chin, 1998). As indicated in *Table 3* all the cross loading for items are less than their respective items.

**Table 3. Discriminant Validity**

	<b>Perceived Ease of Dealing with Construction Permits</b>	<b>Perceived Ease of Enforcing Contracts</b>	<b>Perceived Ease of Getting Credit</b>	<b>Perceived Ease of Getting Electricity</b>	<b>Perceived Ease of Paying Taxes</b>	<b>Perceived Ease of Registering Property</b>	<b>Perceived Ease of Trading across Borders</b>
Perceived Ease of Dealing with Construction Permits	<b>0.745</b>						
Perceived Ease of Enforcing Contracts	0.145	<b>0.907</b>					
Perceived Ease of Getting Credit	0.235	0.277	<b>0.816</b>				
Perceived Ease of Getting Electricity	0.353	0.082	0.279	<b>0.832</b>			
Perceived Ease of Paying Taxes	0.363	0.205	0.459	0.387	<b>0.757</b>		
Perceived Ease of Registering Property	0.156	0.608	0.197	0.144	0.176	<b>0.840</b>	
Perceived Ease of Trading across Borders	0.332	0.598	0.359	0.244	0.405	0.537	<b>0.767</b>

## CONCLUSION

Overall results suggest that the developed scale is valid and reliable. The validity and reliability of scale can be improved further by confirming its validity and reliability in researches of diverse contexts like developed countries. The scale can be helpful for researchers and scholars in assessing perceived ease of doing business. Also this scale can be of greater help for policy makers of all the countries to assess perception of existing and potential entrepreneurs regarding ease of doing business because if any investor feels that the environment is not suitable for investment he will be reluctant to take entrepreneurial actions. Hence government and regulatory institutions can identify and assess the factors this scale which are of vital importance for investors.

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**Surey Instrument**  
**Perceived Ease of Doing Business**

**Measurement Scale Items:**

*A. Perceived Ease of Registration of Property*

1. It takes relatively less time to transfer property in my country
2. The number of procedures for transferring property are relatively less in my country
3. It is easy to transfer property in my country
4. The cost of transferring property in my country is reasonable
5. Overall land administration in my country is of good quality

*B. Perceived Ease of Dealing with Construction Permits*

6. The cost of getting construction permit is justifiable in my country
7. The number of procedures are relatively less in my country
8. Time is not wasted in getting construction permit in my country
9. It is easy to access information about procedure of getting construction permit
10. Building regulation in my country are of high quality

*C. Perceived Ease of Getting Electricity*

11. There are relatively less number of procedures for getting electricity connection for business in my country
12. It takes relatively less time to get electricity connection for business in my country
13. The cost of obtaining electricity connection for business is reasonable in my country
14. The quality of electricity is good in my country
15. The electrification rate (share of the population connected to electricity) is high in my country

*D. Perceived Ease of getting Credit*

16. It is easy for creditors to force repayment of debt
17. The creditors can easily seize collateral of the loan in case of default
18. information about credit histories and current indebtedness of borrowers can easily be accessed in my country.
19. creditors are paid first out of the proceeds of liquidating a bankrupt firm
20. Our firm does not have any difficulty in accessing bank financing'.

*E. Perceived ease of Paying Taxes*

21. I find online tax system easy to use in filling my tax return
22. I find it easy in filing my income tax using online tax system
23. The number of payments by taxpayer are comparatively less in our country
24. Procedure of tax compliance takes less time in our country
25. Tax rate in our country is justifiable

*F. Perceived Ease of Trading Across Border*

26. It takes relatively less time to export and import products in my country
27. The cost of international trade is relatively low in my country
28. Ports for international trade in my country are efficient
29. The customs departments are efficient and business friendly in my country
30. The regulatory environment in my country is efficient and business friendly

*G. Perceived Ease of Enforcing Contracts*

31. It takes relatively less time by legal system in my country to enforce contract
32. The number of procedures for enforcement of contract are relatively less in my country
33. The courts and enforcement costs in my country are relatively low
34. Average Attorney fee in my country is reasonable
35. The legal system of my country is of high quality and standard