



# Report on survey of Expert assessments of e-business in Latin America and Sub-Saharan Africa

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From 2003 to 2005, our research team on e-business in developing countries investigated experts' perceptions on the most pertinent issues affecting the success of electronic business in Latin America (LA) and in Sub-Saharan Africa (SSA). Mr. Hamadoun Touré, the Director of the International Telecommunication Union's Bureau of Development, has affirmed that this study could contribute towards achieving one of ITU-D's goals of harnessing the potentials of ICTs for socioeconomic development of developing countries. We hope that business managers, policy makers, and government and NGO officials can use the results of this study in furthering the development of e-business in developing countries.

Chitu Okoli, now at Concordia University in Montréal, Canada, conducted the Sub-Saharan Africa phase of the study (summer 2003) for his doctoral dissertation at Louisiana State University, Baton Rouge, USA, which he successfully defended on October 13, 2003. Dr. Victor Mbarika chaired the dissertation. Together with Dr. Scott McCoy, we subsequently collected data for Latin America. This document reports the results of the survey, but it does not discuss them. The dissertation reports the SSA phase of the study from a scholarly perspective in far more detail, giving both methodological details of the study (chapters 3 and 4) and discussing in-depth the theoretical meaning and implications of the results (chapters 2 and 5). This dissertation is freely available on the World Wide Web at:

[<http://chitu.okoli.org/mis/research/dissertation/>](http://chitu.okoli.org/mis/research/dissertation/)

Before conducting the actual survey, we conducted a pilot (test) survey to refine our questionnaire and administration procedure. We sent the survey to a selection of experts in Sub-Saharan Africa in April and May 2003 for the pilot survey, and obtained 48 completed responses. Based on these responses, we modified the survey to be more valid and reflective of what we are actually trying to discover. We do not report any results from the pilot test here, but they are available in the full dissertation report.

We conducted the main study, which we report here, in two phases. In the Sub-Saharan Africa phase, we sent the questionnaire by e-mail to over a thousand expert contacts from May to July 2003, and we also sent follow-ups by postal mail to those whom we had not heard from. By the conclusion of the first phase in August 2003, we eventually received 158 responses; however, only 138 were sufficiently complete for us to use for our analysis here. In the Latin America phase, we e-mailed the questionnaire to contacts from the [Institute for Connectivity in the Americas](#), [Camara-e \(the Brazilian Chamber of E-commerce\)](#), and [Connect-World](#). Altogether, we received 201 responses, but only 181 were usable (of which 98 were from Brazil). The report that follows is a detailed summary of the results.

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## Demographic Questions

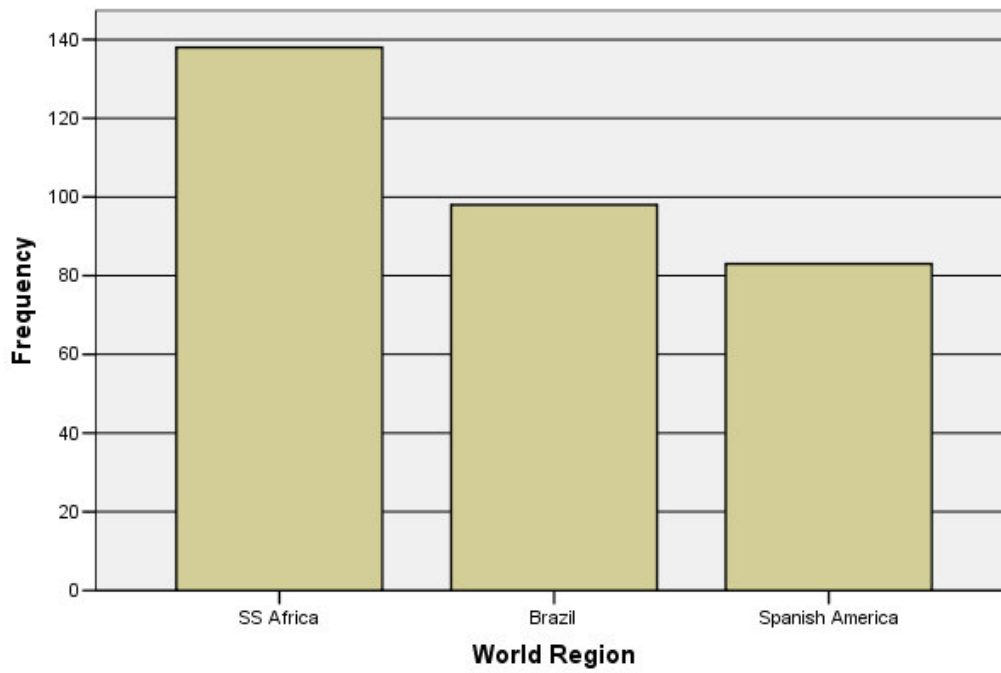
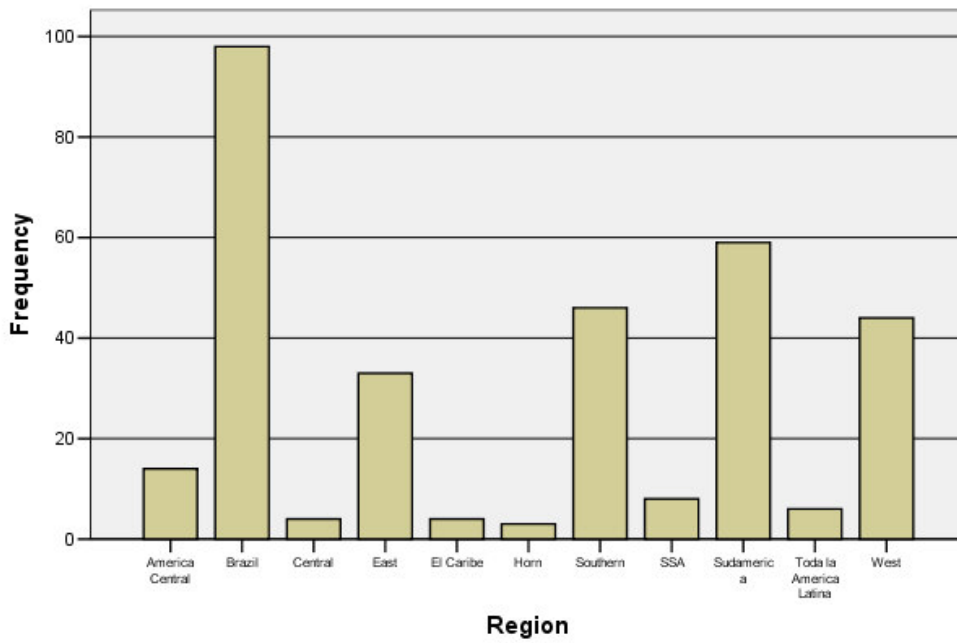
### Country and region for which the experts responded to the survey questions

Geo-economic sub-regions of Latin America	
<b>Brazil</b>	Brazil
<b>Caribbean</b>	Cuba, Dominican Republic, Puerto Rico
<b>Central America</b>	Costa Rica, El Salvador, Honduras, Mexico, Nicaragua, Panama,
<b>South America</b>	Argentina, Bolivia, Chile, Colombia, Ecuador, Guatemala, Paraguay, Peru, Uruguay, Venezuela

Geo-economic sub-regions of Sub-Saharan Africa	
<b>Central Africa and Great Lakes</b>	Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo (Zaire), Equatorial Guinea, Gabon, Rwanda, Sao Tome and Principe
<b>East Africa</b>	Kenya, Sudan, Tanzania, Uganda
<b>Horn of Africa</b>	Djibouti, Eritrea, Ethiopia, Somalia
<b>Southern Africa</b>	Angola, Botswana, Comoros, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Zambia, Zimbabwe
<b>West Africa</b>	Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo

Region	Sub-region	Country	Count	%
Brazil	Brazil	Brazil	98	100.0%
Spanish America	Central America		14	16.9%
	Caribbean		4	4.8%
	South America		59	71.1%
	All of Latin America		6	7.2%
	Central America	Central America	1	
		Costa Rica	1	
		El Salvador	2	
		Honduras	3	
		Mexico	6	
		Panama	1	
	Caribbean	Caribbean	2	
		Dominican Republic	2	
	South America	Argentina	21	
		Bolivia	7	
		Chile	2	
		Colombia	4	
		Ecuador	2	
		Guatemala	5	
		Paraguay	1	
		Peru	13	
		South America	1	
		Uruguay	2	
		Venezuela	1	
	All of Latin America	All of Latin America	6	
Total for Spanish America			83	

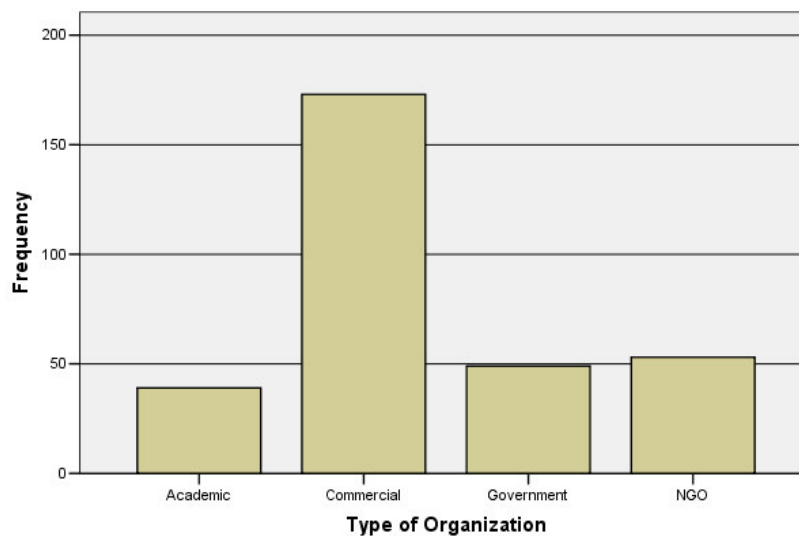
Region	Sub-region	Country	Count	%
Sub Saharan Africa	Central		4	2.9%
	East		33	23.9%
	Horn		3	2.2%
	Southern		46	33.3%
	SSA		8	5.8%
	West		44	31.9%
	Central	Gabon	1	
		Rwanda	3	
	East	East Africa	2	
		Kenya	21	
		Sudan	2	
		Tanzania	5	
	Horn	Uganda	3	
		Eritrea	1	
		Ethiopia	1	
	Southern	Horn of Africa	1	
		Madagascar	2	
		Malawi	3	
		Mauritius	3	
		Mozambique	7	
		Namibia	5	
		Seychelles	1	
		Southern Africa	10	
		Swaziland	1	
		Zambia	7	
	SSA	Zimbabwe	7	
		All of Sub-Saharan Africa	8	
	West	Benin	1	
		Burkina Faso	1	
		Chad	1	
		Cote d'Ivoire (Ivory Coast)	3	
		Gambia	2	
		Ghana	11	
		Guinea	2	
		Mali	2	
		Niger	1	
		Nigeria	17	
		Senegal	2	
West Africa			1	
Total for Sub-Saharan Africa			138	
Total for All Regions			319	

**World Region****Region**

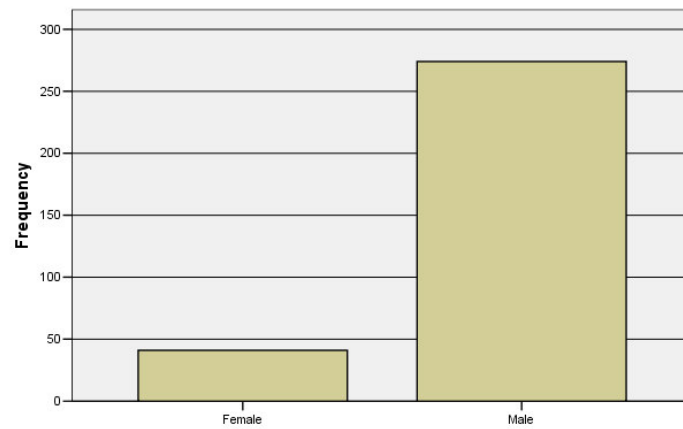
## Categorical demographic questions

		Brazil		Spanish America		Latin America		SS Africa		Total	
Type of organization to which expert belongs	Commercial	69	71.9%	35	43.2%	104	58.8%	69	50.4%	173	55.1%
	Government	8	8.3%	17	21.0%	25	14.1%	24	17.5%	49	15.6%
	NGO	13	13.5%	17	21.0%	30	16.9%	23	16.8%	53	16.9%
	Academic	6	6.3%	12	14.8%	18	10.2%	21	15.3%	39	12.4%
	<b>Total</b>	<b>96</b>	<b>100.0%</b>	<b>81</b>	<b>100.0%</b>	<b>177</b>	<b>100.0%</b>	<b>137</b>	<b>100.0%</b>	<b>314</b>	<b>100.0%</b>
Gender	Female	14	14.6%	14	17.1%	28	15.7%	13	9.5%	41	13.0%
	Male	82	85.4%	68	82.9%	150	84.3%	124	90.5%	274	87.0%
	<b>Total</b>	<b>96</b>	<b>100.0%</b>	<b>82</b>	<b>100.0%</b>	<b>178</b>	<b>100.0%</b>	<b>137</b>	<b>100.0%</b>	<b>315</b>	<b>100.0%</b>
Age	24 years old or less	5	5.2%	1	1.2%	6	3.4%	4	2.9%	10	3.2%
	25 to 34 years old	26	27.1%	21	25.6%	47	26.4%	43	31.6%	90	28.7%
	35 to 44 years old	33	34.4%	29	35.4%	62	34.8%	50	36.8%	112	35.7%
	45 to 54 years old	26	27.1%	23	28.0%	49	27.5%	30	22.1%	79	25.2%
	55 to 64 years old	6	6.3%	5	6.1%	11	6.2%	8	5.9%	19	6.1%
	65 years old or greater			3	3.7%	3	1.7%	1	.7%	4	1.3%
	<b>Total</b>	<b>96</b>	<b>100.0%</b>	<b>82</b>	<b>100.0%</b>	<b>178</b>	<b>100.0%</b>	<b>136</b>	<b>100.0%</b>	<b>314</b>	<b>100.0%</b>
Highest level of education attained	Primary School	1	1.1%			1	.6%			1	.3%
	Secondary School	3	3.2%			3	1.7%	4	3.0%	7	2.3%
	Some Post-Secondary Education	4	4.2%	4	5.0%	8	4.6%	8	6.0%	16	5.2%
	Bachelor's	25	26.3%	23	28.8%	48	27.4%	45	33.6%	93	30.1%
	Master's	58	61.1%	40	50.0%	98	56.0%	59	44.0%	157	50.8%
	Doctorate	4	4.2%	13	16.3%	17	9.7%	18	13.4%	35	11.3%
	<b>Total</b>	<b>95</b>	<b>100.0%</b>	<b>80</b>	<b>100.0%</b>	<b>175</b>	<b>100.0%</b>	<b>134</b>	<b>100.0%</b>	<b>309</b>	<b>100.0%</b>

Type of Organization

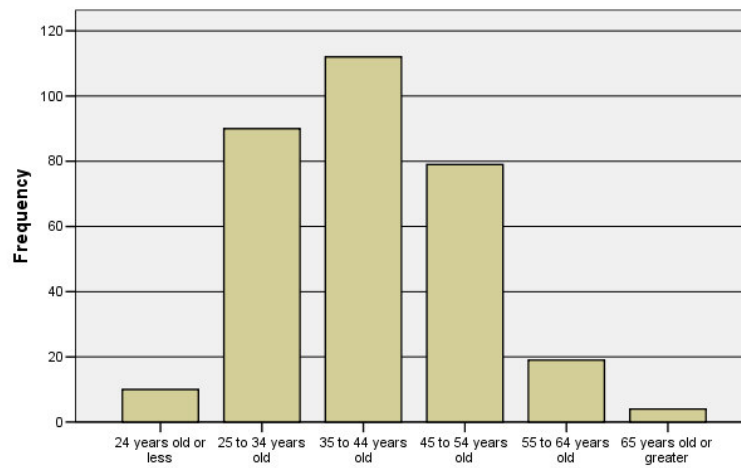


Gender



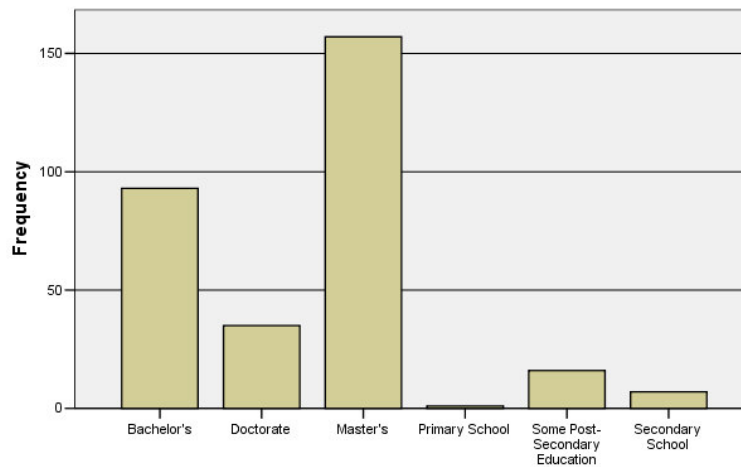
Gender

Age



Age

Highest Education



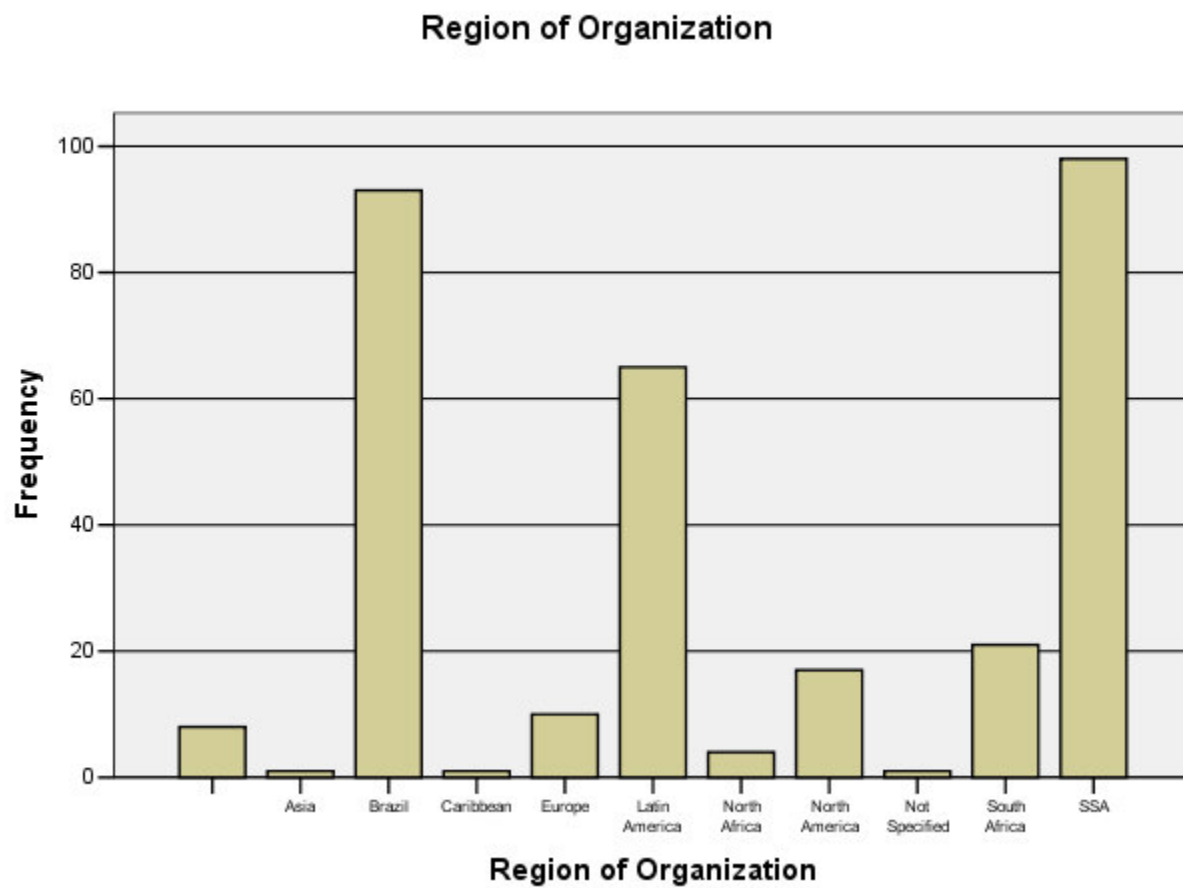
Highest Education

## Country in which expert's *organization* is based

Region	Sub-Region	Country	Count	%	
Brazil	Missing		4	4.1%	
	Brazil		85	86.7%	
	Latin America		3	3.1%	
	North America		5	5.1%	
	Not Specified		1	1.0%	
	Brazil	Brazil	85	100.0%	
	Latin America	Argentina	1	33.3%	
		Bolivia	1	33.3%	
		Other	1	33.3%	
	North America	Canada	1	20.0%	
		United States	4	80.0%	
	Not Specified	Other	1	100.0%	
Total for Brazil			98		
Spanish America	Missing		3	3.6%	
	Brazil		8	9.6%	
	Caribbean		1	1.2%	
	Europe		2	2.4%	
	Latin America		62	74.7%	
	North America		7	8.4%	
	Brazil	Brazil	8	100.0%	
	Caribbean	Barbados	1	100.0%	
	Europe	Spain	1	50.0%	
		Netherlands	1	50.0%	
	Latin America			1	1.6%
		Argentina		17	27.4%
		Chile		2	3.2%
		Colombia		3	4.8%
		Ecuador		1	1.6%
		El Salvador		2	3.2%
		Guatemala		4	6.5%
		Guyana		1	1.6%
		Honduras		3	4.8%
		Mexico		5	8.1%
		Other		1	1.6%
		Panama		1	1.6%
		Paraguay		1	1.6%
		Peru		13	21.0%
		Dominican Republic		2	3.2%
		Uruguay		4	6.5%
		Venezuela		1	1.6%
	North America	Canada		3	42.9%
		United States		4	57.1%
Total for Spanish America			83		



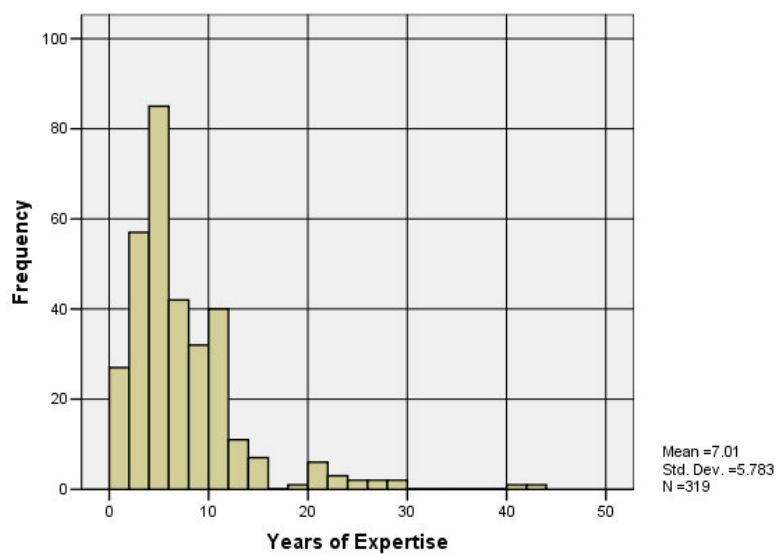
Region	Sub-Region	Country	Count	%
SS Africa	Missing		1	.7%
	Asia		1	.7%
	Europe		8	5.8%
	North Africa		4	2.9%
	North America		5	3.6%
	South Africa		21	15.2%
	SSA		98	71.0%
	Asia	India	1	100.0%
	Europe	France	2	25.0%
		Netherlands	1	12.5%
		Norway	1	12.5%
		Switzerland	1	12.5%
		United Kingdom	3	37.5%
	North Africa	Egypt	1	25.0%
		Morocco	3	75.0%
	North America	United States of America	5	100.0%
	South Africa	South Africa	21	100.0%
	SSA	Benin	1	1.0%
		Burkina Faso	1	1.0%
		Côte d'Ivoire	1	1.0%
		Djibouti	1	1.0%
		Eritrea	1	1.0%
		Ethiopia	1	1.0%
		Gambia	2	2.0%
		Ghana	8	8.2%
		Kenya	17	17.3%
		Laos	1	1.0%
		Madagascar	2	2.0%
		Malawi	3	3.1%
		Mali	2	2.0%
		Mauritius	3	3.1%
		Mozambique	6	6.1%
Namibia		4	4.1%	
Niger		1	1.0%	
Nigeria		17	17.3%	
Rwanda		1	1.0%	
Senegal		2	2.0%	
Seychelles		1	1.0%	
Sudan		2	2.0%	
Swaziland		1	1.0%	
Tanzania	6	6.1%		
Uganda	3	3.1%		
Zambia	5	5.1%		
Zimbabwe	5	5.1%		
Total for Sub-Saharan Africa			138	



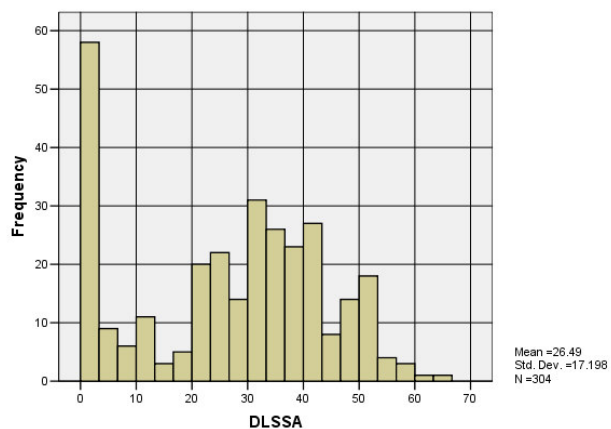
## Numeric demographic questions

		Count	Missing	Minimum	Maximum	Mean	Median	Standard Deviation
<b>Brazil</b>	Years of expertise with e-business in Latin America	98	0	1	41	6.48	6	5.33
	Years lived in Latin America (DLSSA)	98	0	0	57	28.50	32	17.89
	Years lived in non-Latino Caribbean (DLSA)	98	0	0	35	.54	0	3.75
	Years lived in Canada or USA (DLNA)	98	0	0	12	.64	0	1.81
	Years in other technologically-advanced countries (DLT)	98	0	0	33	1.68	0	5.18
<b>Spanish America</b>	Years of expertise with e-business in Latin America	83	0	1	44	7.82	6	6.88
	Years lived in Latin America (DLSSA)	83	0	0	66	32.53	35	16.27
	Years lived in non-Latino Caribbean (DLSA)	83	0	0	28	.36	0	3.08
	Years lived in Canada or USA (DLNA)	83	0	0	68	3.08	0	10.05
	Years in other technologically-advanced countries (DLT)	83	0	0	41	1.66	0	5.32
<b>Latin America</b>	Years of expertise with e-business in Latin America	181	0	1	44	7.09	6	6.11
	Years lived in Latin America (DLSSA)	181	0	0	66	30.35	34	17.24
	Years lived in non-Latino Caribbean (DLSA)	181	0	0	35	.46	0	3.45
	Years lived in Canada or USA (DLNA)	181	0	0	68	1.76	0	7.02
	Years in other technologically-advanced countries (DLT)	181	0	0	41	1.67	0	5.23
<b>SS Africa</b>	Years of expertise with e-business in SSA	138	0	1	28	6.89	5	5.34
	Years lived in Sub-Saharan Africa (DLSSA)	123	15	0	50	20.82	22	15.55
	Years lived in Republic of South Africa (DLSA)	118	20	0	50	4.87	0	11.52
	Years lived in North Africa (DLNA)	112	26	0	40	1.31	0	5.83
	Years in technologically-advanced countries (DLT)	122	16	0	47	7.40	3	10.52
<b>Total</b>	Years of expertise with e-business in LA/SSA	319	0	1	44	7.01	5	5.78
	Years lived in LA/SSA (DLSSA)	304	15	0	66	26.49	30	17.20
	Years lived in Caribbean/RSA (DLSA)	299	20	0	50	2.20	0	8.00
	Years lived in North America/North Africa (DLNA)	293	26	0	68	1.59	0	6.58
	Years in other technologically-advanced countries (DLT)	303	16	0	47	3.98	0	8.28

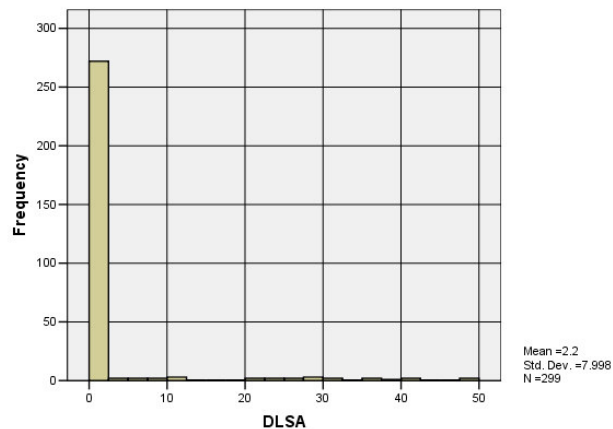
Years of Expertise



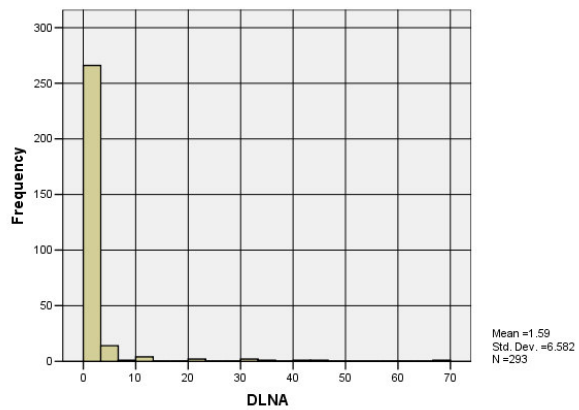
DLSSA



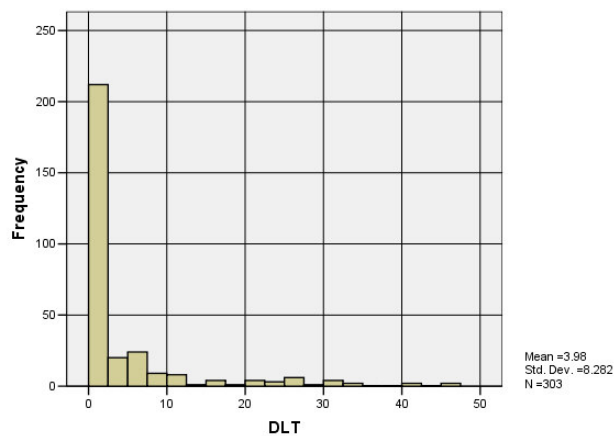
DLSA



DLNA



DLT



# Actual survey questions on e-business in LA and SSA

## Survey questions and codes

Concept	Code	Question
<b>E-business Outcomes</b>		
<b>E-Business Capabilities</b>		<b>Capabilities:</b> Please indicate how much you agree or disagree that urban SME businesses in your country will have the following e-business capabilities <b>by the end of 2004</b> .
	<b>EBCI</b>	<b>Information:</b> Product information will be available online for business customers, including product search capabilities.
	<b>EBCT</b>	<b>Transaction:</b> Business customers will be able to use websites to place, track, and review orders.
	<b>EBCX</b>	<b>Interaction:</b> Business customers will be able to manage online accounts, customize their view of the website, and conduct real-time chat with customer service representatives.
	<b>EBCS</b>	<b>Supplier connection:</b> Businesses will place online orders from suppliers, use electronic data interchange (EDI), and electronically share inventory information with suppliers and business partners.
	<b>EBCN</b>	<b>Intranet:</b> Within a business, employees will be able to use the Internet to share information internally, communicate with each other, and run applications.
<b>E-Business Value</b>		<b>Value impacts:</b> Please indicate how much you agree or disagree with these statements about the impacts of e-business in the context of urban SME businesses in your country.
	<b>EBVR</b>	E-business activity will increase <b>revenues</b> .
	<b>EBVC</b>	E-business activity will <b>save costs</b> .
	<b>EBVT</b>	E-business activity will save employees' <b>time and effort</b> .
	<b>EBVJN</b>	E-business activity will result in <b>new jobs</b> in your country.
	<b>EBVJL</b>	E-business activity will result in people <b>losing their jobs</b> in your country.
<b>ICT Policies</b>		How much do you agree or disagree with the following statements about <b>current</b> policies concerning ICTs in your country?
<b>General ICT Policies</b>		Some policies <b>influence</b> information and communication technologies (ICTs) by encouraging or setting a trend, whereas others <b>regulate</b> ICTs by implementing and enforcing definite laws. Some policies target the <b>supply</b> of ICTs by focusing on organizations that create and provide ICTs, whereas others target the <b>demand</b> for ICTs by focusing on people and organizations that use them.
	<b>IPIS</b>	The government <b>influences the supply</b> of ICTs (for example: by funding ICT research and innovation; providing educational and training services; and subsidizing ICT development).
	<b>IPID</b>	The government <b>influences the demand</b> for ICTs (for example: by providing skill training; subsidizing the costs of purchasing ICTs; and providing programs for ICT awareness and promotion).
	<b>IPRS</b>	The government <b>regulates the supply</b> of ICTs (for example: by requiring computer education; removing economic barriers to ICT trade and innovation; and establishing standards and requirements for research and development in ICTs).
	<b>IPRD</b>	The government <b>regulates the demand</b> for ICTs (for example: by requiring specific ICT-related standards, products or processes be used by government agencies or businesses with government contracts).
	<b>IPP</b>	<b>Privatization and liberalization:</b> The government gives ownership and control of telecommunications provision to private enterprises, and private enterprises can freely compete in the mobile phone, ICT and ISP markets.
<b>E-business Policies</b>	<b>IPEP</b>	<b>E-business promotion:</b> The government generally supports and actively promotes the practice of e-business.
	<b>IPEI</b>	<b>Intellectual property rights:</b> The government actively enforces the protection of patents, copyrights, trademarks, and other intellectual property rights.
	<b>IPEU</b>	<b>E-business user rights:</b> E-business users have well-defined and actively-enforced legal rights when engaging in e-business regarding purchase protection and privacy.
	<b>IPEA</b>	<b>Awareness of e-business:</b> People are generally aware of the concept and benefits of electronic business.
<b>ICT Infrastructure</b>		How much do you agree or disagree with the following statements about <b>the current state</b> of infrastructure for information and communication technologies in <b>urban cities</b> in your country?
	<b>IITB</b>	There is an adequate number of national and international <b>trunk/backbone (long distance)</b> phone and data circuits.
	<b>IIE</b>	There is a steady supply of <b>electrical power</b> , whether by national grids or backup electrical generators.
	<b>IIW</b>	There is an adequate number of <b>ICT workers</b> skilled in developing and maintaining ICTs, training others how to use ICTs, and managing ICT infrastructures.
	<b>IIWN</b>	There is an adequate number of <b>wireless networks</b> , such as VSAT, satellite and microwave links.

Concept	Code	Question
	IIP	Urban citizens have adequate access to <b>phone services</b> , whether land telephone lines, mobile/cellular phones, or payphones.
	III	Urban citizens have adequate <b>access to the Internet</b> , whether from home, work, Internet cafes, telecenters, or other locations.
	IIISP	There is an adequate number of <b>Internet service providers (ISPs)</b> for the number of citizens.
	IIA	Computers, networks, Internet access, and other ICTs are <b>affordable</b> for most urban SME businesses.
	IIQ	The ICT equipment and services available to urban SME businesses are generally of <b>high quality</b> .
Institutions and Commerce		
Commercial Infrastructure		How much do you agree or disagree with the following statements about the general commercial environment in your country?
	ICCC	<b>Corruption:</b> Bribery and corruption are <b>rare</b> when dealing with the government or businesses in relation to contracts, loans, licenses, tax assessments, fines, and other necessary services.
	<a href="#">ICCD*</a>	Which of the following descriptions most adequately reflects the distribution environment for physical products in your country? ( <i>See key below for listing of the options for this question.</i> )
	ICCP	<b>Electronic payment systems:</b> Banks support electronic merchant payment systems such as credit and debit cards.
Institutions		How much do you agree or disagree with the following statements about governance institutions in your country?
	ICIV	<b>Voice and accountability:</b> Citizens can freely choose their government. They can exercise political rights and civil liberties, and the press is independent from government control.
	ICIB	<b>Government regulation and bureaucracy:</b> The government <b>does not</b> control goods markets, interfere with the banking system, nor excessively regulate or control private business and international trade.
	ICIR	<b>Risk of repudiation:</b> There is a <b>low</b> risk that the government will modify its contracts by scaling them down, postponing them, or outright repudiating them.
	ICIL	<b>Rule of law:</b> The government justly enforces contracts, and protects individuals and businesses against violence, theft and fraud.
ICT Transfer Implementation		How much do you agree or disagree with the following statements about implementation factors for a <b>typical ICT project</b> (especially e-business) in urban SME businesses in your country?
	TITM	Top managers support the project by word and action.
	TIUI	Users are closely involved in the design and development of the system.
	TIUT	Users are computer literate and they are adequately trained in using the system.
	TIPC	There is at least one person (not necessarily a top manager) who purposefully champions the project by encouraging and advocating it.
	TISD	The systems development team is skilled in the pertinent technologies.
Culture-Specific Beliefs and Values		Please indicate how much you agree or disagree with these statements about the work environment in urban SME businesses that implement or consider implementing ICTs (such as e-business) in your country.
Uncertainty Avoidance	CUAT	Business employees generally do not trust ICTs or e-business.
	CUAS	Business employees are generally concerned about data security when considering using ICTs.
	CUAP	Managers typically prefer to adopt ICTs or e-business only if it has been proven to be effective.
	CUAN	Managers are usually hesitant to attempt new ICT or e-business applications.
Power Distance	CPDP	Managers frequently use their authority and power when dealing with subordinates.
	CPDD	Managers do not usually delegate important tasks to employees.
	CPDA	Subordinates are usually afraid to express disagreement with their superiors.
	CPDS	Managers generally avoid off-the-job social contacts with employees.
Technology Culturation		Please indicate how much you agree or disagree with the following statements about the amount and nature of travel for <b>managers of ICTs or e-business</b> in urban SME businesses in your country. ( <i>For these questions, include the Republic of South Africa as a “technologically-advanced” country.</i> )
	CTCB	Most have traveled to a technologically-advanced country for <b>business purposes</b> .
	CPCP	Most have traveled to a technologically-advanced country for <b>personal (non-business) purposes</b> .
	CPCS	Most have attended a computer-related conference <b>either within Sub-Saharan Africa or in another developing country</b> .
	CPCT	Most have attended a computer-related conference <b>in a technologically-advanced country</b> .

## \*Key to question scores

Almost all questions were on a 7-point scale scored 1 to 7. However, ICCD was five-point, scored 1 to 5.	
	<p>Regular items:</p> <ul style="list-style-type: none"> <li>○ Strongly disagree (1.0)</li> <li>○ Disagree (2.0)</li> <li>○ Somewhat disagree (3.0)</li> <li>○ Neutral (4.0)</li> <li>○ Somewhat agree (5.0)</li> <li>○ Agree (6.0)</li> <li>○ Strongly agree (7.0)</li> </ul>
ICCD	<p>Which of the following descriptions most adequately reflects the distribution environment for physical products in your country?</p> <ul style="list-style-type: none"> <li>○ <b>Poor: (1.0)</b> Basic postal services sparse and expensive. Road infrastructure seriously deficient even in larger cities. Airfreight services unavailable or prohibitively expensive.</li> <li>○ <b>Substandard: (2.0)</b> Basic postal services available but not reliable. Road infrastructure passable in larger cities, but does not reach remote areas. Airfreight services very expensive and infrequent.</li> <li>○ <b>Fair: (3.0)</b> Postal services well developed. Main cities linked by reliable road infrastructure. Airfreight services regular though still infrequent.</li> <li>○ <b>Good: (4.0)</b> Private delivery services available as alternative to traditional postal service. Roads to most locations in good condition. Regular and continuous airfreight services.</li> <li>○ <b>Excellent: (5.0)</b> Delivery services widely available. Airfreight well developed. Cities and towns well connected by highways and/or secondary roads. Sophisticated, specialized, distribution services.</li> </ul>

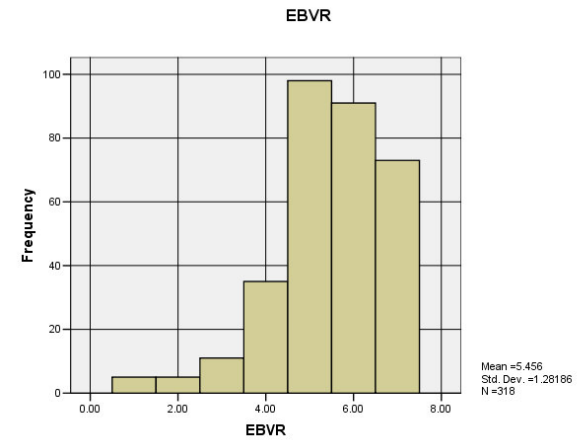
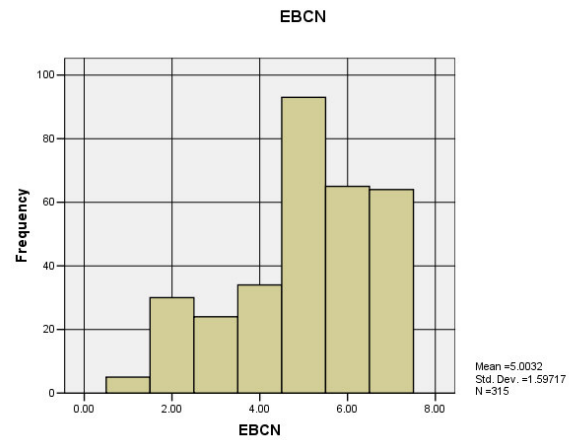
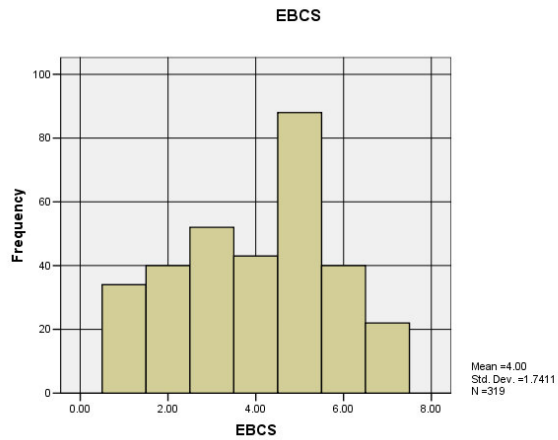
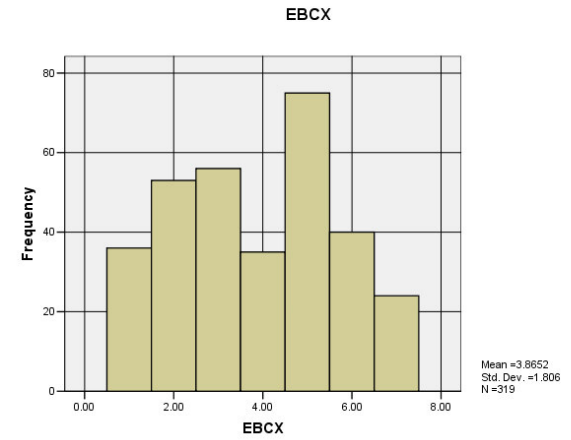
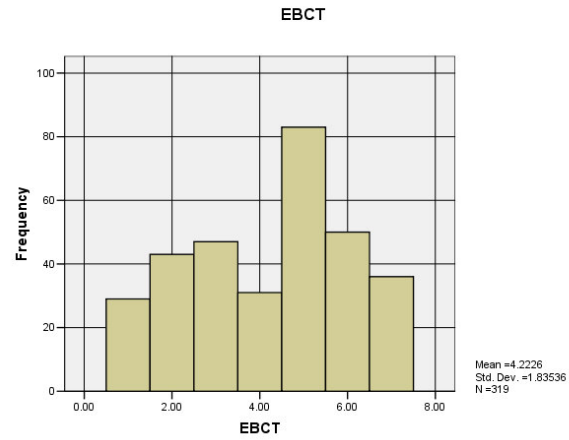
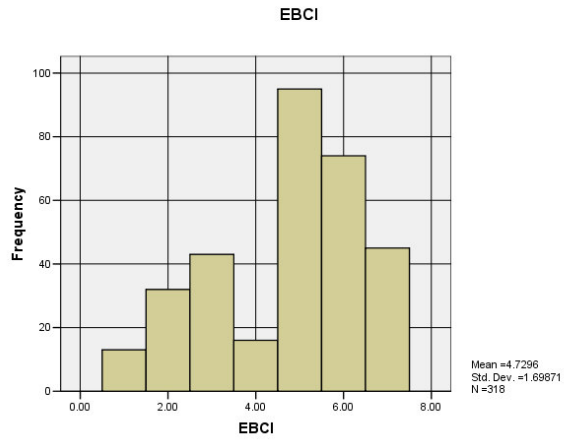
## Question responses

	Brazil					Spanish America					Latin America					SS Africa					Total				
	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$
EBCI	98	5.16	5.00	5.00	1.56	83	4.80	5.00	6.00	1.69	181	4.99	5.00	5.00	1.63	137	4.38	5.00	5.00	1.73	318	4.73	5.00	5.00	1.70
EBCT	98	4.79	5.00	5.00	1.66	83	4.20	5.00	5.00	1.74	181	4.52	5.00	5.00	1.72	138	3.83	4.00	5.00	1.92	319	4.22	5.00	5.00	1.84
EBCX	98	4.22	5.00	5.00	1.73	83	3.96	4.00	5.00	1.82	181	4.10	4.00	5.00	1.77	138	3.55	3.00	5.00	1.81	319	3.87	4.00	5.00	1.81
EBCS	98	4.49	5.00	5.00	1.50	83	4.20	5.00	5.00	1.83	181	4.36	5.00	5.00	1.66	138	3.53	3.00	3.00	1.74	319	4.00	4.00	5.00	1.74
EBCN	98	5.02	5.00	5.00	1.61	83	4.67	5.00	6.00	1.77	181	4.86	5.00	5.00	1.69	134	5.19	5.00	5.00	1.45	315	5.00	5.00	5.00	1.60
EBVR	97	5.67	6.00	5.00	1.18	83	5.57	6.00	6.00	1.24	180	5.62	6.00	5.00	1.21	138	5.24	5.00	6.00	1.35	318	5.46	6.00	5.00	1.28
EBVC	98	5.82	6.00	7.00	1.20	81	5.42	6.00	6.00	1.43	179	5.64	6.00	6.00	1.32	138	5.55	6.00	5.00	1.23	317	5.60	6.00	6.00	1.28
EBVT	98	5.79	6.00	6.00	1.11	83	5.46	6.00	6.00	1.56	181	5.64	6.00	6.00	1.34	138	5.69	6.00	6.00	1.16	319	5.66	6.00	6.00	1.27
EBVJN	97	4.45	5.00	5.00	1.46	82	4.94	5.00	5.00	1.33	179	4.68	5.00	5.00	1.42	137	5.34	5.00	5.00	1.32	316	4.96	5.00	5.00	1.41
EBVJL	98	3.91	4.00	3.00	1.45	82	4.32	5.00	5.00	1.64	180	4.09	4.00	5.00	1.55	138	3.76	4.00	3.00	1.65	318	3.95	4.00	3.00	1.60
IPIS	98	4.24	5.00	5.00	1.71	82	4.13	4.00	5.00	1.66	180	4.19	4.50	5.00	1.68	137	4.09	5.00	5.00	2.01	317	4.15	5.00	5.00	1.83
IPID	98	4.27	5.00	5.00	1.67	83	3.93	4.00	4.00	1.53	181	4.11	4.00	5.00	1.61	137	3.93	4.00	5.00	1.87	318	4.03	4.00	5.00	1.73
IPRS	98	3.93	4.00	5.00	1.64	83	3.88	4.00	3.00	1.53	181	3.91	4.00	5.00	1.58	137	4.10	4.00	5.00	1.83	318	3.99	4.00	5.00	1.70
IPRD	97	4.28	4.00	5.00	1.50	83	4.00	4.00	4.00	1.65	180	4.15	4.00	5.00	1.57	137	3.85	4.00	3.00	1.77	317	4.02	4.00	5.00	1.66
IPP	98	4.85	5.00	5.00	1.48	82	4.78	5.00	6.00	1.58	180	4.82	5.00	5.00	1.52	137	4.51	5.00	5.00	1.95	317	4.68	5.00	5.00	1.73
IPEP	98	4.28	4.00	5.00	1.40	83	3.75	4.00	4.00	1.58	181	4.03	4.00	4.00	1.50	136	4.04	4.00	5.00	1.76	317	4.04	4.00	4.00	1.61
IPEI	98	3.96	4.00	4.00	1.72	81	4.06	4.00	5.00	1.30	179	4.01	4.00	5.00	1.54	136	3.74	4.00	3.00	1.88	315	3.89	4.00	5.00	1.70
IPEU	97	3.94	4.00	3.00	1.53	82	3.59	3.00	3.00	1.40	179	3.78	4.00	3.00	1.48	136	3.13	3.00	1.00	1.78	315	3.50	3.00	3.00	1.64
IPEA	97	3.58	3.00	3.00	1.47	83	3.30	3.00	2.00	1.45	180	3.45	3.00	3.00	1.46	136	3.71	4.00	5.00	1.65	316	3.56	3.00	3.00	1.55
IITB	98	4.59	5.00	6.00	1.54	83	4.90	5.00	5.00	1.72	181	4.73	5.00	5.00	1.63	138	3.26	3.00	1.00	1.98	319	4.10	4.00	5.00	1.93
IIE	98	4.86	5.00	5.00	1.38	83	5.08	5.00	6.00	1.57	181	4.96	5.00	5.00	1.47	137	3.55	3.00	3.00	1.92	318	4.36	5.00	5.00	1.82
IIIW	98	4.23	4.00	3.00	1.46	83	4.23	5.00	5.00	1.52	181	4.23	4.00	3.00	1.49	138	3.56	3.00	3.00	1.76	319	3.94	4.00	3.00	1.64
IIWN	98	3.93	4.00	3.00	1.58	83	4.19	4.00	5.00	1.64	181	4.05	4.00	5.00	1.61	138	3.20	3.00	2.00	1.64	319	3.68	4.00	3.00	1.68
IIP	98	4.88	5.00	5.00	1.73	83	5.05	6.00	6.00	1.74	181	4.96	5.00	6.00	1.73	137	4.11	5.00	5.00	1.83	318	4.59	5.00	5.00	1.82
III	98	4.02	4.00	5.00	1.66	83	4.49	5.00	5.00	1.76	181	4.24	5.00	5.00	1.71	133	3.78	4.00	5.00	1.76	314	4.04	4.00	5.00	1.75
IIA	98	3.22	3.00	2.00	1.77	83	3.86	4.00	5.00	1.73	181	3.51	3.00	2.00	1.77	136	3.12	3.00	2.00	1.64	317	3.34	3.00	2.00	1.73
IIQ	98	3.74	4.00	4.00	1.69	83	4.06	4.00	5.00	1.63	181	3.89	4.00	5.00	1.67	137	3.80	4.00	5.00	1.64	318	3.85	4.00	5.00	1.65
ICIV	97	5.42	6.00	7.00	1.57	83	5.04	5.00	5.00	1.48	180	5.24	5.00	5.00	1.53	138	4.72	5.00	6.00	1.77	318	5.02	5.00	5.00	1.66

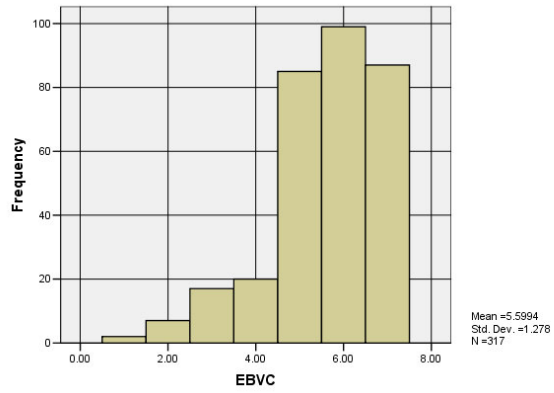


	Brazil					Spanish America					Latin America					SS Africa					Total				
	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$	N	Mean	Median	Mode	$\sigma$
ICIB	97	3.72	3.00	3.00	1.82	82	4.01	4.00	5.00	1.58	179	3.85	4.00	3.00	1.72	137	4.08	4.00	3.00	1.72	316	3.95	4.00	3.00	1.72
ICIR	97	4.51	5.00	6.00	1.76	82	3.68	3.00	2.00	1.78	179	4.13	4.00	5.00	1.81	138	4.15	4.00	4.00	1.68	317	4.14	4.00	5.00	1.75
ICIL	97	4.14	4.00	3.00	1.64	81	3.68	4.00	3.00	1.48	178	3.93	4.00	3.00	1.58	137	4.28	4.00	4.00	1.85	315	4.08	4.00	5.00	1.71
ICCC	97	2.66	2.00	2.00	1.50	83	2.63	2.00	1.00	1.59	180	2.64	2.00	2.00	1.54	138	2.95	3.00	1.00	1.74	318	2.78	2.00	1.00	1.63
ICCP	97	6.16	7.00	7.00	1.10	81	5.63	6.00	7.00	1.45	178	5.92	6.00	7.00	1.30	138	4.12	5.00	5.00	1.98	316	5.14	6.00	7.00	1.85
ICCD	94	3.51	4.00	4.00	.95	81	3.44	4.00	4.00	1.00	175	3.48	4.00	4.00	.97	136	2.84	3.00	2.00	1.07	311	3.20	3.00	4.00	1.06
TITM	97	4.59	5.00	5.00	1.29	83	4.51	5.00	5.00	1.34	180	4.55	5.00	5.00	1.31	136	4.45	5.00	5.00	1.31	316	4.51	5.00	5.00	1.31
TIUI	98	4.15	4.00	3.00	1.39	83	4.20	4.00	5.00	1.31	181	4.18	4.00	5.00	1.35	136	3.82	4.00	3.00	1.46	317	4.03	4.00	3.00	1.41
TIUT	98	3.91	4.00	3.00	1.39	82	4.17	5.00	5.00	1.39	180	4.03	4.00	5.00	1.39	135	3.84	4.00	3.00	1.46	315	3.95	4.00	5.00	1.42
TIPC	98	4.96	5.00	5.00	1.29	83	5.08	5.00	5.00	1.14	181	5.02	5.00	5.00	1.22	136	5.02	5.00	5.00	1.21	317	5.02	5.00	5.00	1.21
TISD	97	5.01	5.00	5.00	1.19	82	4.95	5.00	5.00	1.15	179	4.98	5.00	5.00	1.17	136	4.54	5.00	5.00	1.41	315	4.79	5.00	5.00	1.30
CUAT	98	3.57	4.00	3.00	1.39	82	4.27	4.00	4.00	1.22	180	3.89	4.00	5.00	1.36	138	3.71	3.00	3.00	1.33	318	3.81	4.00	3.00	1.35
CUAS	98	4.91	5.00	5.00	1.28	83	4.77	5.00	5.00	1.26	181	4.85	5.00	5.00	1.27	138	4.70	5.00	5.00	1.57	319	4.78	5.00	5.00	1.41
CUAP	98	5.43	6.00	6.00	1.13	83	5.23	5.00	6.00	1.18	181	5.34	5.00	6.00	1.16	138	5.13	5.00	6.00	1.34	319	5.25	5.00	6.00	1.24
CUAN	98	4.59	5.00	5.00	1.49	83	4.58	5.00	5.00	1.52	181	4.59	5.00	5.00	1.50	138	4.83	5.00	5.00	1.32	319	4.69	5.00	5.00	1.43
CPDP	98	5.19	5.00	5.00	1.22	83	5.17	5.00	5.00	1.28	181	5.18	5.00	5.00	1.24	137	5.39	6.00	6.00	1.23	318	5.27	5.00	5.00	1.24
CPDD	98	4.50	5.00	5.00	1.43	83	4.58	5.00	5.00	1.27	181	4.54	5.00	5.00	1.36	136	4.71	5.00	5.00	1.40	317	4.61	5.00	5.00	1.38
CPDA	98	4.83	5.00	5.00	1.47	82	5.06	5.00	5.00	1.44	180	4.93	5.00	5.00	1.46	136	5.08	5.00	5.00	1.46	316	5.00	5.00	5.00	1.46
CTCB	98	3.61	3.00	3.00	1.58	83	3.98	4.00	3.00	1.50	181	3.78	4.00	3.00	1.55	137	4.90	5.00	5.00	1.40	318	4.26	5.00	5.00	1.58
CTCP	98	4.10	4.00	5.00	1.50	83	4.65	5.00	5.00	1.45	181	4.35	5.00	5.00	1.50	136	4.58	5.00	5.00	1.43	317	4.45	5.00	5.00	1.47
CTCS	98	3.90	4.00	5.00	1.61	83	3.95	4.00	3.00	1.51	181	3.92	4.00	4.00	1.56	137	4.60	5.00	5.00	1.41	318	4.21	4.00	5.00	1.53
CTCT	98	3.85	4.00	5.00	1.59	82	3.59	4.00	5.00	1.55	180	3.73	4.00	5.00	1.57	135	4.33	5.00	5.00	1.47	315	3.99	4.00	5.00	1.56

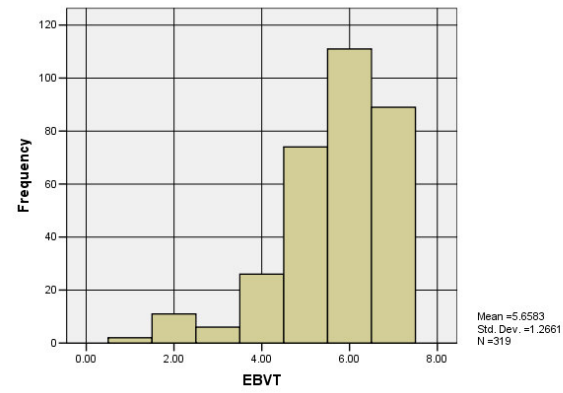
## Question response charts



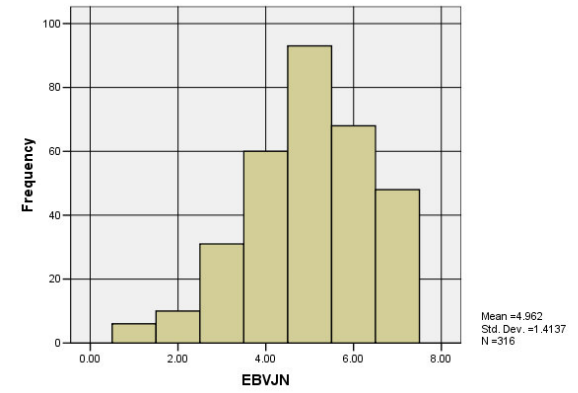
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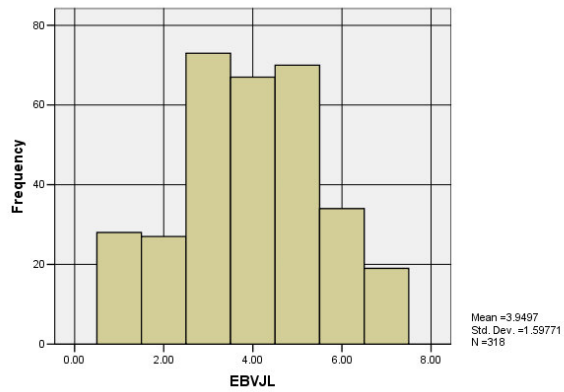
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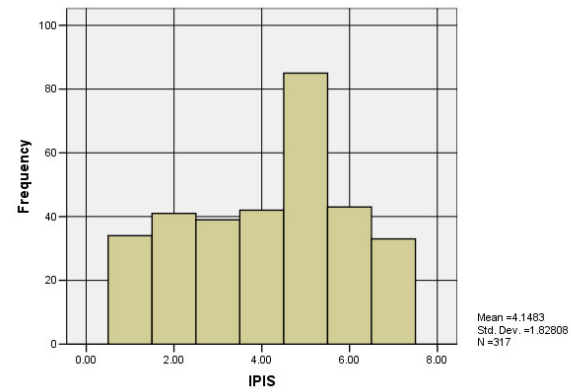
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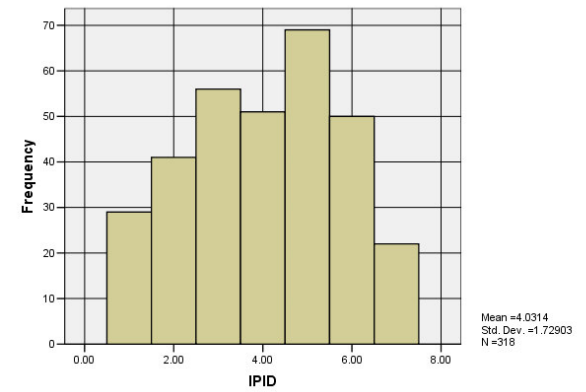
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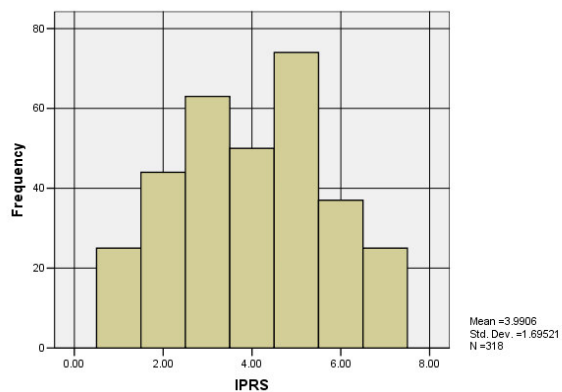
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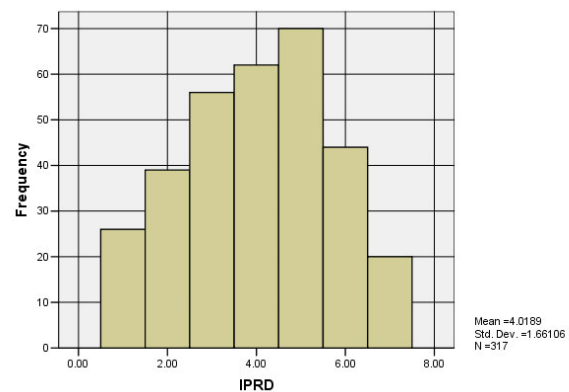
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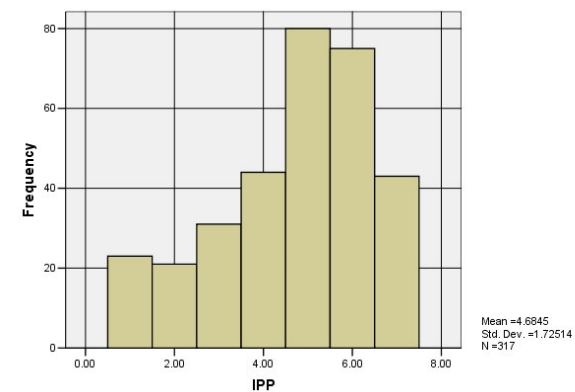
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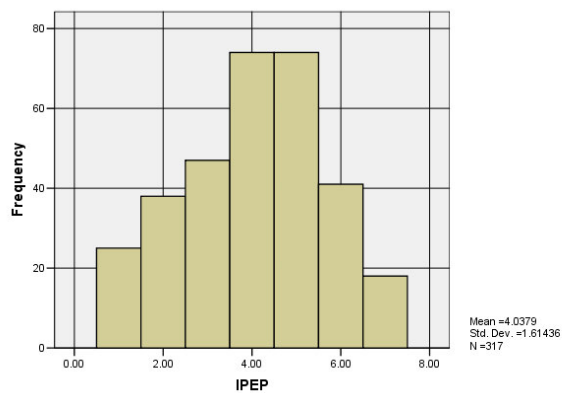
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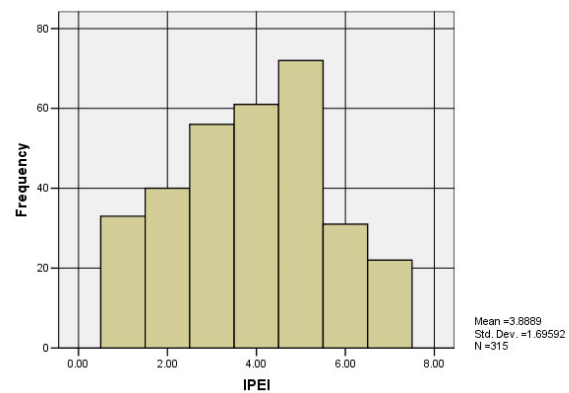
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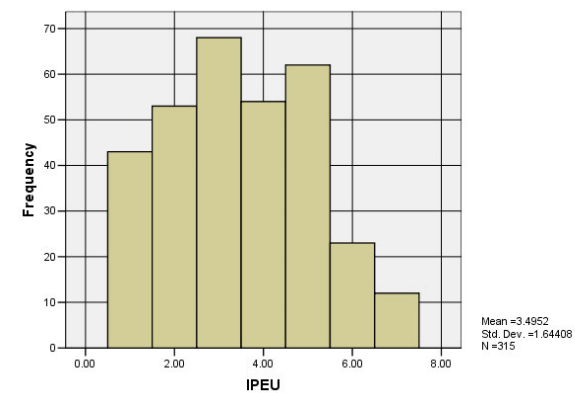
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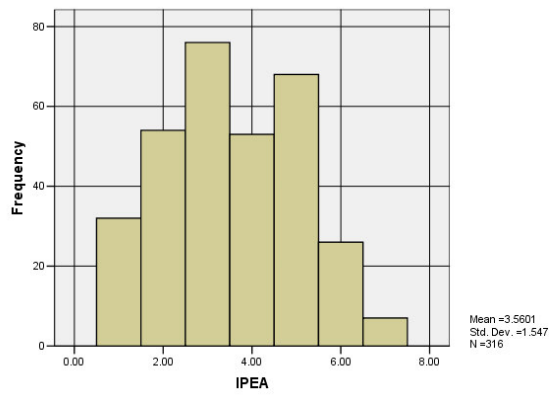
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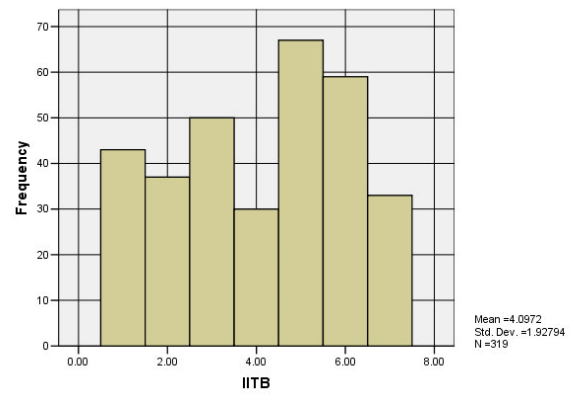
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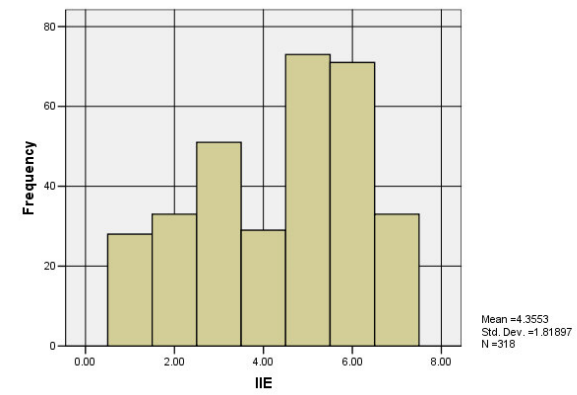
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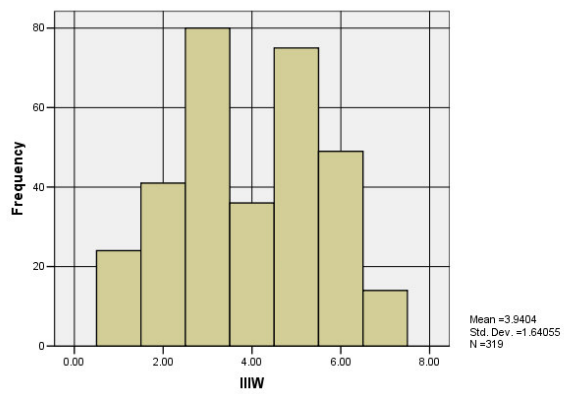
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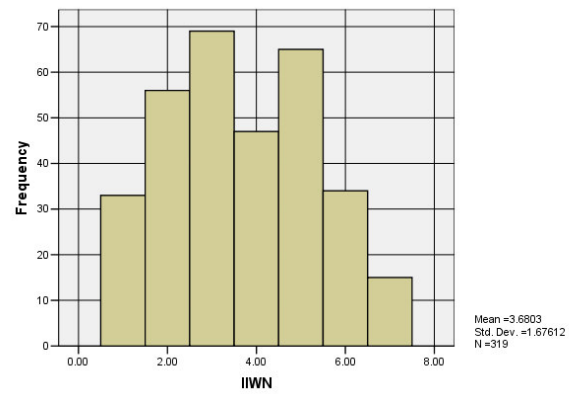
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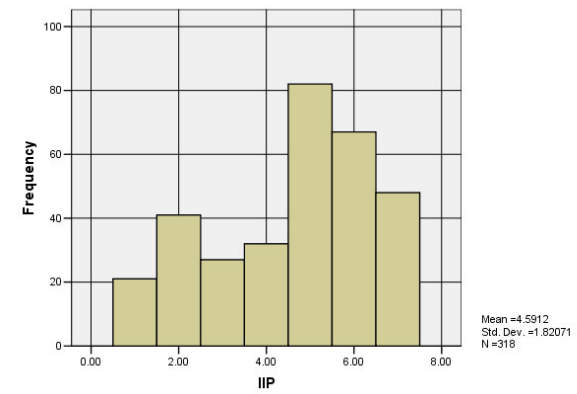
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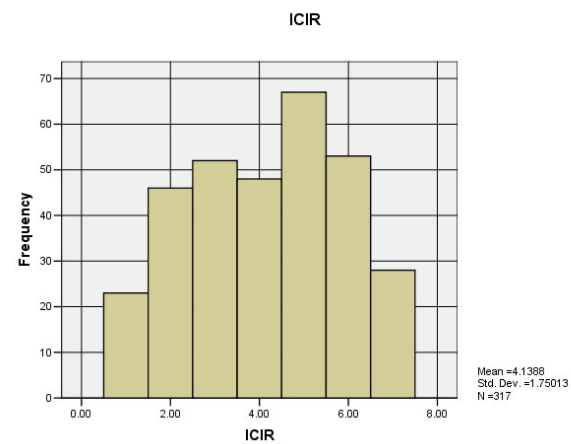
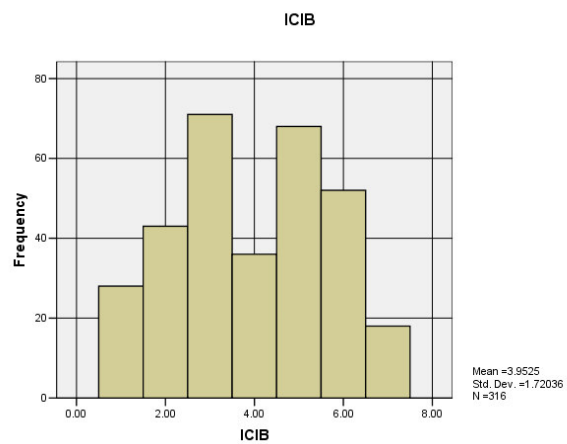
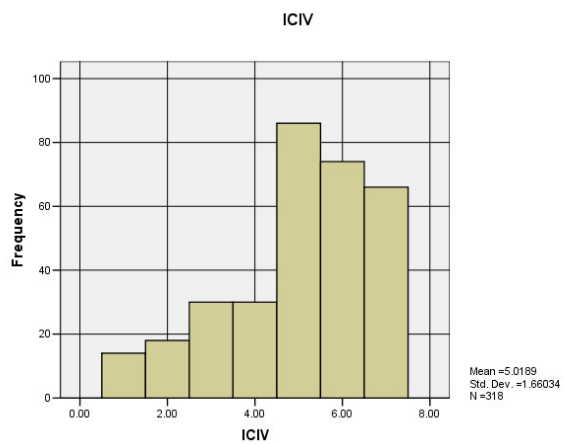
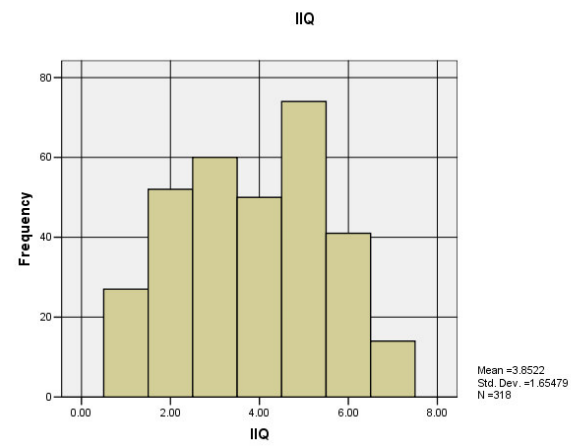
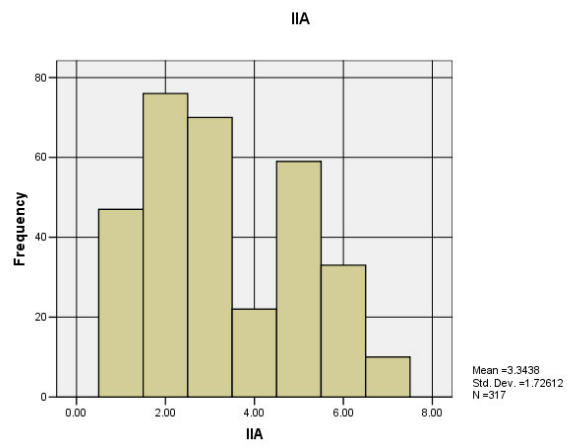
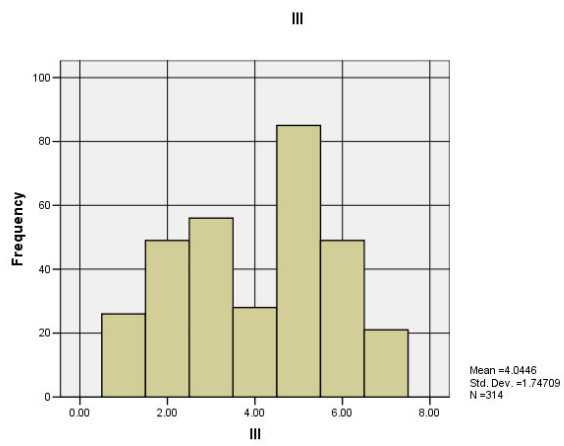


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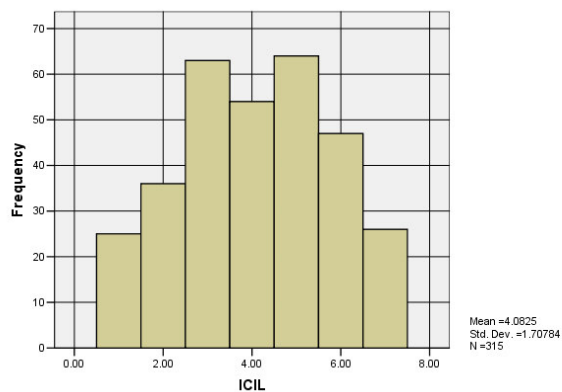


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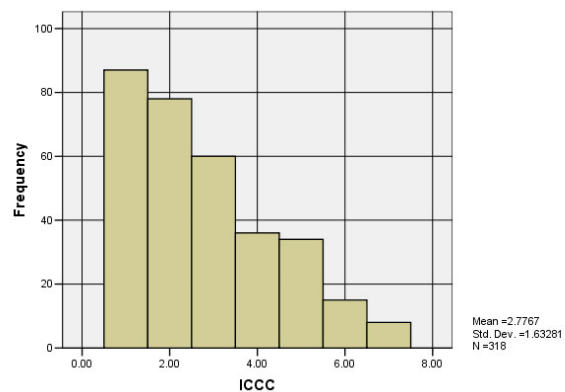




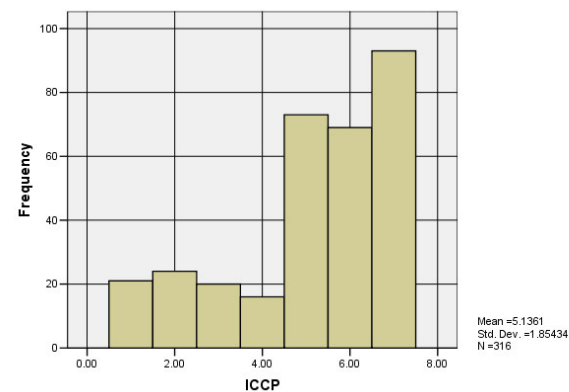
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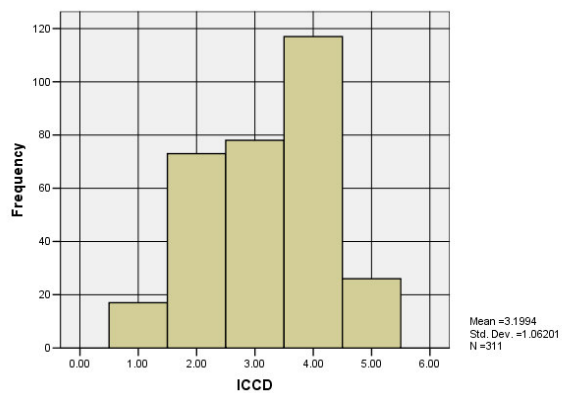
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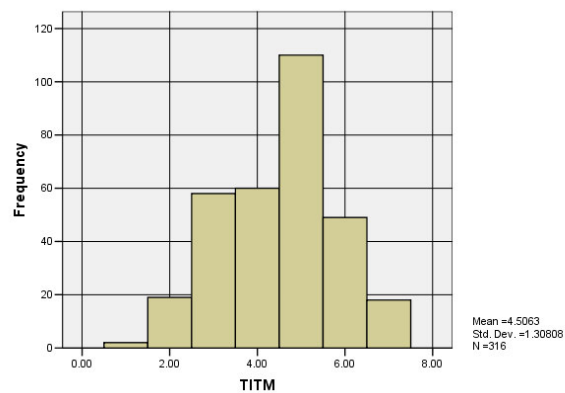
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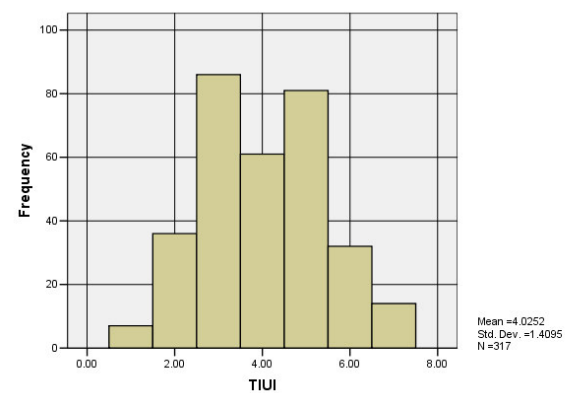
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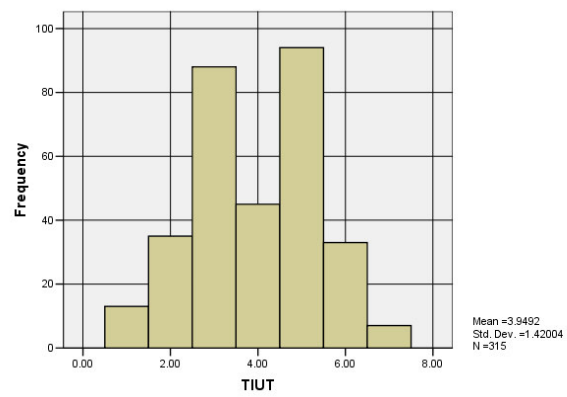
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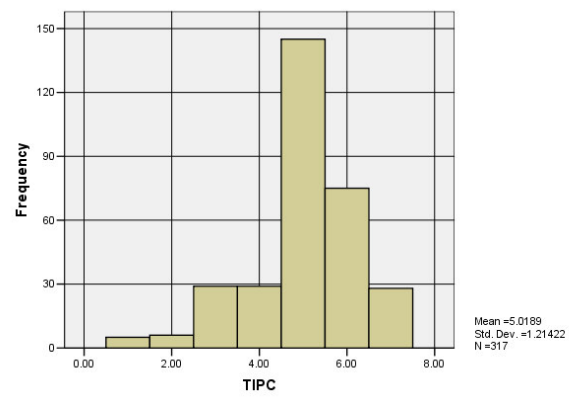
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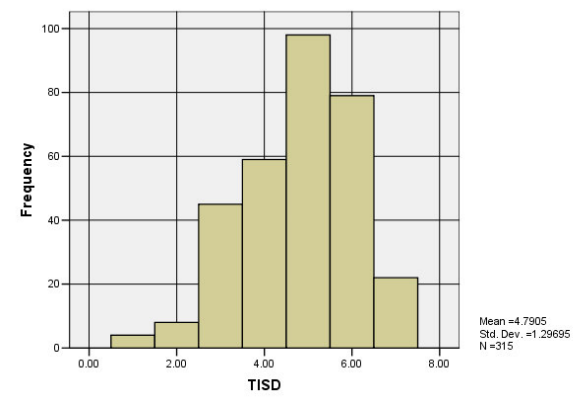
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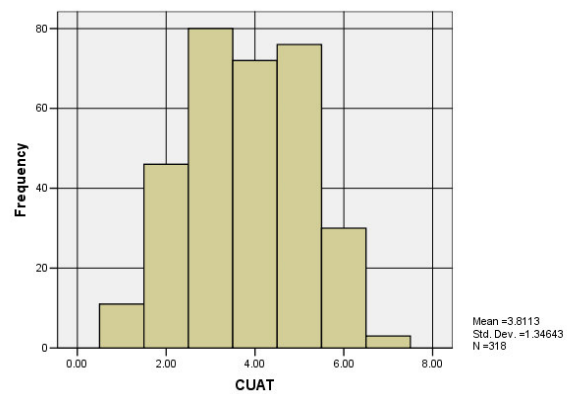
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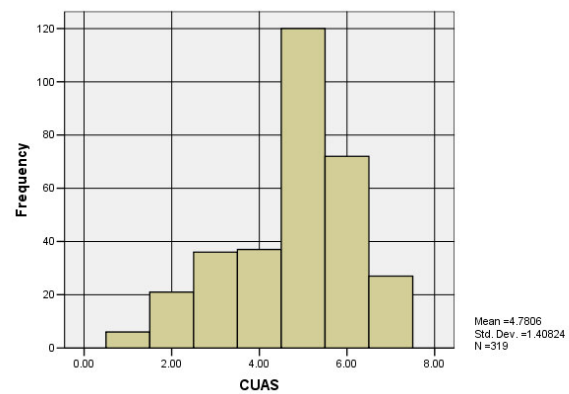
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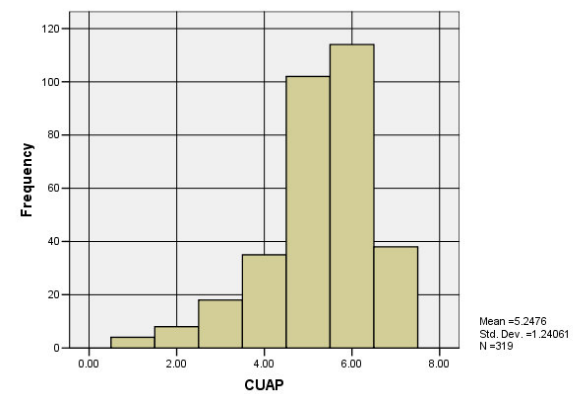
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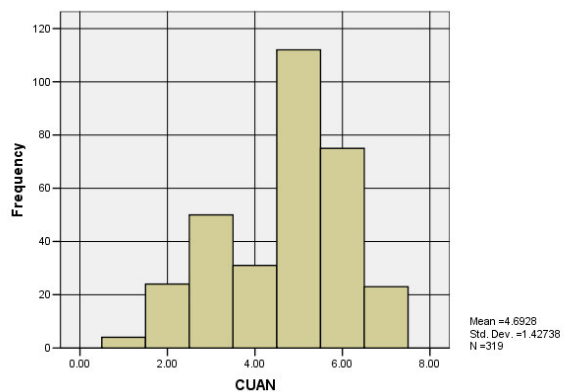


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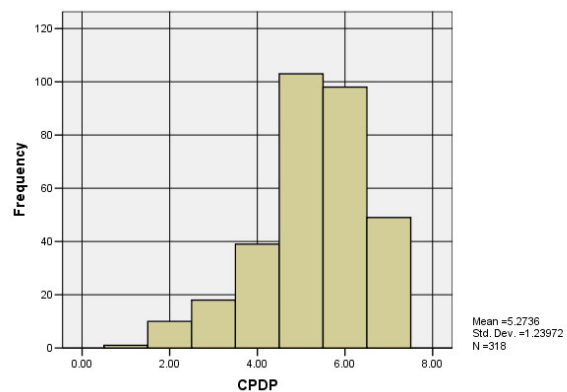




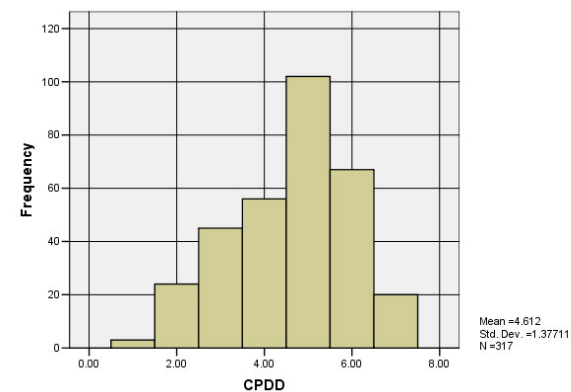
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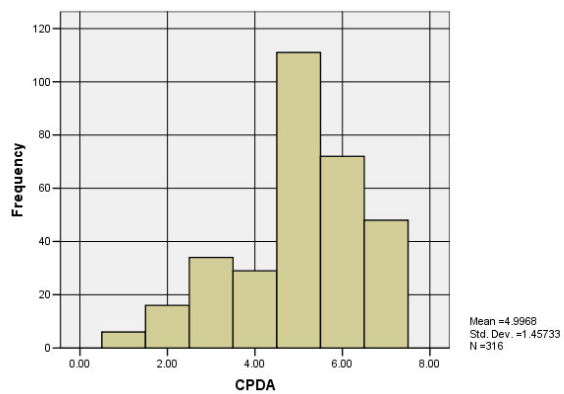
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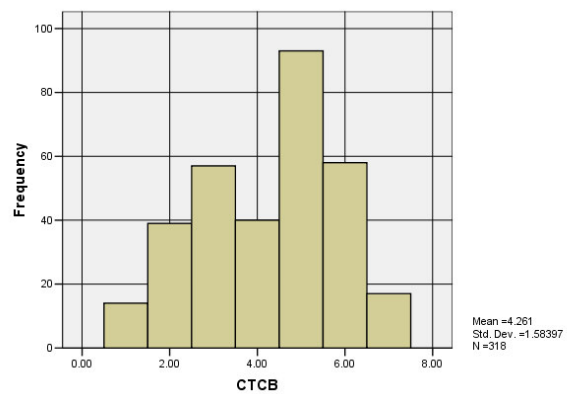
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CPDA



CTCB



CTCP

