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Assessment of Staffs' Organizational Ability: A Scale Validation, The Case of Bonga College of Teacher Education

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ABSTRACT

The aim of this study was to validate the questionnaire of organization ability of staffs that was developed by Williams, in University of Brighton. This questionnaire was validated based on the fresh data collected through the questionnaire from randomly selected 240 staffs in Bonga College of Teachers Education, SNNPR, Ethiopia. Confirmatory factor analysis method was employed for data analysis. The SPSS 20 version and Stata15 Version software were used for the analysis. The results revealed that the questionnaire which was previously loaded under five constructs, (1) preference for organization; (2) goal achievement; (3) planning approach; (4) acceptance of delays; and (5) preference for routine was loaded under three constructs: (1) preference for organization; (2) goal achievement and (3) acceptance of delays. The organizational ability of staffs in Bonga College of teacher education significantly expressed in terms of Constructs: 'preference of the staff to be organized', 'goal achievement of the staff' and 'acceptance of the staff for delay' in such a way that: Organizational Ability =.91 Preference + =.61 goal achievement -.41delay + error.

Keywords: preference for organization, goal achievement, planning approach, acceptance of delays, preference for routine

INTRODUCTION

A number of researchers have contrasted different types of achievement goals and examined the effects of these goals on a variety of cognitive, affective, and behavioral outcomes (for reviews, see Ames, 1992; Dweck, 1986; Nicholls, 1989; Urdan, 1997). Preference for the work routine as well as preference to be organized originates from motivation and need. Work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration (Pinder, 1998, p. 11). Thus, motivation is a psychological process resulting from the interaction between the individual and the environment. Kanfer (1991) has stressed the importance of needs as internal tensions that influence the mediating cognitive processes that result in behavioral variability. Haslam et al. (2000) presented a process-based analysis of need structure and need salience derived from the social identity approach to organizational behavior. Need-based theories explain why a person must act; they do not explain why specific actions are chosen in specific situations to obtain specific outcomes. Moreover, they do not easily account for individual differences. A meta-analysis by Zetik and Stuhlmacher (2002) revealed that negotiators who have specific, challenging, and conflicting goals consistently achieve higher profits than those with no goals. "Time is money" is the fundamental premise underlying disputes regarding delays. Rosalie (2009) mentioned abut time as follows:

> Being organized is a matter of using time in such a way that after paying our dues to our work, our family, and our community, we have a little time left over to spend as we wish. The idea of time has been analyzed by thinkers, doers, and philosophers; struggled with; and sometimes rejected entirely. We tend to think of time in the same terms in which we think of money: make time/make money; waste time/waste money; save time/save money; lose time/lose money. In the United States particularly, time is money, and only money—in certain cases—can buy you time.

Rosalie (2009) also mentioned the negative effect of delay as "Postponing, delaying, or avoiding a task makes us uncomfortable, and we get mad at ourselves". Latham et al. (2002) updated the high performance cycle that explains how high goals lead to high performance, which in turn leads to rewards. Rewards result in high satisfaction as well as high self-efficacy regarding perceived ability to meet future challenges through the setting of even higher goals. High satisfaction is the result of high performance; it can lead to subsequent high performance only if it fosters organizational commitment, and only if the

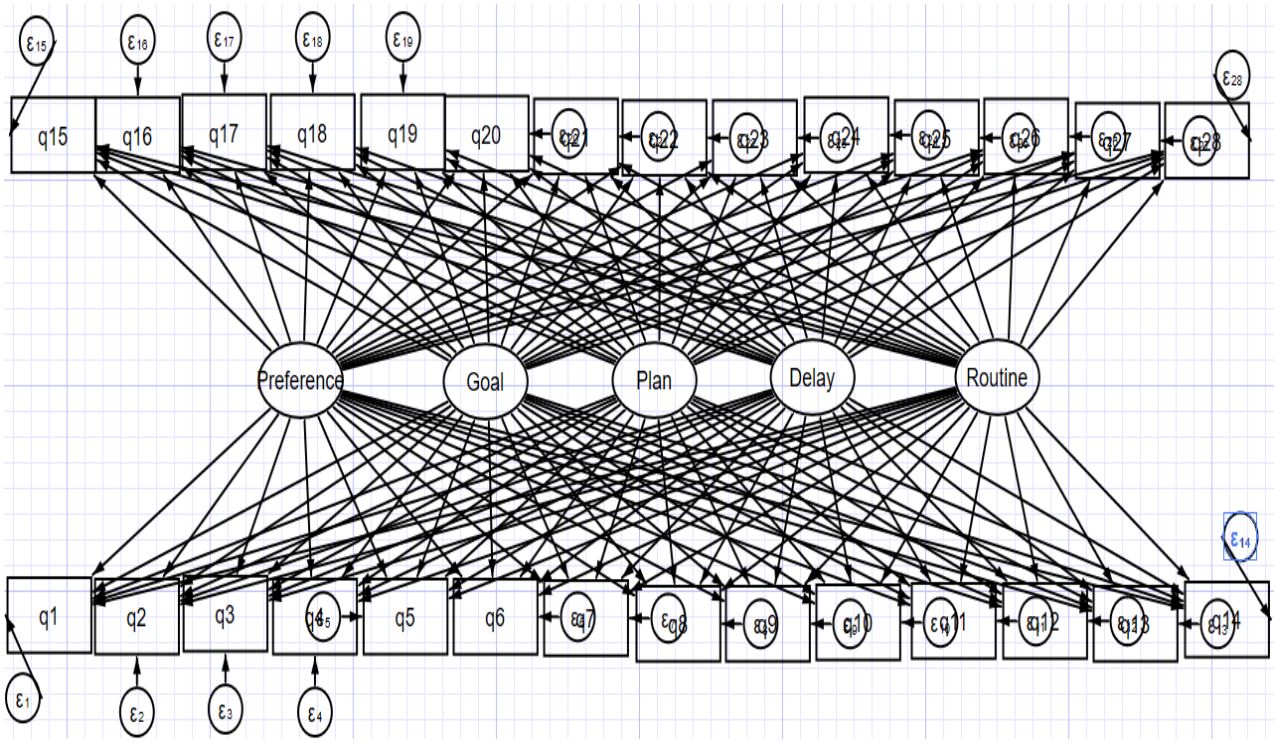

Figure 1. Path diagram suggested by Williams.S

commitment is to specific challenging goals. Thus, this validation was performed taking the preference for routine, preference to be organized, the goal achievement, and the planning approach into account.

PARTICIPANTS AND METHODS

The study focus on Assessment of staffs' attitude on constructs of organizational ability: the case of Bonga College of teacher education. For this, I have collected data from 240 participants of Bonga College of Teacher education based on the questionnaire **(WQOA)** which was devised to measure organizational ability (Williams, S., University of Brighton). She predicted five factors to do with organizational ability: (1) preference for organization; (2) goal achievement; (3) planning approach; (4) acceptance of delays; and (5) preference for routine. These dimensions are *theoretically independent. Williams' questionnaire contains 28 items using a 7-point Likert scale* (1 = strongly disagree, 4 = neither, 7 = strongly agree). The aim was to validate this questionnaire based on fresh data set which I have collected from Bonga College of Teacher Education, SNNPR, Ethiopia. The questionnaire, of 7-scale Likert sacle, was translated to Amharic language so as to make each of questions to be clear to participants. Personal information is added in part one of Amharic version of the questionnaire and this was also translated to Engish. 240 Participants from Bonga College of Teacher Education were randomly selected to fill the questionnaire items. The respondents background information was included in part I of the questionnaire so as to make the questionnaire to be used for other purposes. SPSS 20 version and Stata 15 software were used for analysis. According to Williams.S, the diagram is suggested as follows. This was again retested by fresh data from obtained from participants of Bonga college of teacher education. It was confirmed that which items fall to under which construct and whether all the constructs were applicable in Ethiopian Education context, in the case of one Teacher Education College was checked.

The shorthand notation for each construct under study was given as follows:

1. 'Preference' for the construct preference for organization
2. 'Goal' for the second factor goal achievement, '
3. 'Plan' for the third factor planning approach,
4. 'Delay' for the fourth factor acceptance of delay and
5. 'Routine' for the the fifth factor preference for routine.

The questions which called William's Questionnaire on Organizational Ability (WQOA) was given as follows:

Williams Questionnaire for Organizational Ability (WQOA)

1. I like to have a plan to work to in everyday life
2. I feel frustrated when things don't go to plan
3. I get most things done in a day that I want to
4. I stick to a plan once I have made it
5. I enjoy spontaneity and uncertainty

Table 1. Descriptive Statistics

	Mean	Std. Deviation	Analysis N
q1	2.90	1.937	240
q2	2.10	1.504	240
q3	2.60	.620	240
q4	1.86	.866	240
q5	2.60	1.378	240
q6	3.99	2.133	240
q7	3.95	1.987	240
q8	3.78	1.752	240
q9	4.43	2.121	240
q10	4.91	2.219	240
q11	3.63	1.923	240
q12	4.79	2.216	240
q13	4.01	2.207	240
q14	3.28	2.124	240
q15	4.65	2.092	240
q16	4.08	2.185	240
q17	4.18	2.335	240
q18	3.92	2.195	240
q19	3.87	2.084	240
q20	4.35	2.322	240
q21	4.06	2.298	240
q22	4.00	2.264	240
q23	3.52	2.244	240
q24	3.24	2.139	240
q25	2.88	2.093	240
q26	2.95	2.151	240
q27	3.27	2.187	240
q28	4.58	1.969	240

6. I feel frustrated if I can't find something I need
7. I find it difficult to follow a plan through
8. I am an organized person
9. I like to know what I have to do in a day
10. Disorganized people annoy me
11. I leave things to the last minute
12. I have many different plans relating to the same goal
13. I like to have my documents filed and in order
14. I find it easy to work in a disorganized environment
15. I make 'to do' lists and achieve most of the things on it
16. My workspace is messy and disorganized
17. I like to be organized
18. Interruptions to my daily routine annoy me
19. I feel that I am wasting my time
20. I forget the plans I have made
21. I prioritize the things I have to do
22. I like to work in an organized environment
23. I feel relaxed when I don't have a routine
24. I set deadlines for myself and achieve them
25. I change rather aimlessly from one activity to another during the day
26. I have trouble organizing the things I have to do
27. I put tasks off to another day
28. I feel restricted by schedules and plans

No items were inversely coded so that each item response from the participants was directly recorded into SPSS 20 version. This questionnaire translated to Amharic language by on language expert and then back translated to another language expert. The two questionnaires, namely the back translated questionnaire and the original William's questionnaire were congruent. The translation and back translation questionnaires were attached at **Appendix 1**.

Analysis

Preliminary analysis

Table 1 shows the average and the variances of response of the participants. Moreover, the last column of **Table 1** shows that there is no missing value. That is all of the 240 randomly selected respondents have given response to each of 28 items.

Table 2. Correlation matrix

	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14
q1	1.899	-.874	.573	.111	-.185	.125	-.192	.044	.103	-.149	.168	.098	-.103	.124
q2	-.874	1.674	.198	-.187	-.060	-.086	.178	-.121	.072	.057	-.071	.064	.048	-.134
q3	.573	.198	1.457	-.033	-.140	-.028	.070	-.154	.057	.088	-.031	-.037	-.023	-.047
q4	.111	-.187	-.033	1.186	.119	-.031	.026	.118	.109	-.223	.012	.294	.034	-.080
q5	-.185	-.060	-.140	.119	1.441	-.028	-.109	.077	-.054	-.021	-.168	-.173	.033	-.045
q6	.125	-.086	-.028	-.031	-.028	1.264	-.342	-.053	.007	.076	.040	-.196	-.125	.006
q7	-.192	.178	.070	.026	-.109	-.342	1.386	-.018	-.173	-.204	-.162	.108	-.041	-.076
q8	.044	-.121	-.154	.118	.077	-.053	-.018	1.276	-.187	-.205	-.226	-.026	-.039	.051
q9	.103	.072	.057	.109	-.054	.007	-.173	-.187	1.288	-.084	-.017	-.044	-.090	.130
q10	-.149	.057	.088	-.223	-.021	.076	-.204	-.205	-.084	1.720	-.008	-.786	-.027	.065
q11	.168	-.071	-.031	.012	-.168	.040	-.162	-.226	-.017	-.008	1.403	-.206	-.189	.041
q12	.098	.064	-.037	.294	-.173	-.196	.108	-.026	-.044	-.786	-.206	1.775	-.063	.024
q13	-.103	.048	-.023	.034	.033	-.125	-.041	-.039	-.090	-.027	-.189	-.063	1.201	-.079
q14	.124	-.134	-.047	-.080	-.045	.006	-.076	.051	.130	.065	.041	.024	-.079	1.239
q15	.009	-.024	-.018	.030	-.177	.013	-.157	-.047	-.212	-.058	-.103	.184	-.003	-.201
q16	-.113	.120	-.184	-.176	-.026	-.110	.014	-.071	-.088	-.185	-.016	-.018	.130	-.185
q17	-.051	.043	.309	-.011	-.167	.012	.119	-.230	.027	.089	.020	-.106	.066	.202
q18	-.022	.029	.103	-.051	-.106	.007	.114	-.019	.015	.147	-.012	-.051	-.049	.051
q19	-.016	-.253	-.110	.085	.086	-.109	.015	.173	-.111	-.056	-.317	-.041	-.026	.051
q20	.176	-.010	.001	-.002	.072	-.033	-.053	-.121	.128	.090	.139	-.085	-.062	.006
q21	-.010	.016	-.020	.007	-.276	-.103	-.075	.101	.007	-.126	.069	-.151	.183	-.007
q22	-.001	.043	-.166	-.070	.034	.198	-.211	.117	.076	-.270	-.160	.186	-.284	.088
q23	.089	.033	.030	.120	.000	.026	-.018	.124	-.077	-.201	.092	.148	-.105	.074
q24	-.077	-.059	-.011	-.040	.247	.168	.027	.012	.006	.108	-.088	-.144	.069	.008
q25	.121	-.069	.113	-.029	-.207	-.035	-.234	-.074	.201	.020	.031	-.067	.011	-.157
q26	.001	-.044	-.062	.046	-.051	-.159	.095	-.009	-.003	-.043	-.163	.235	-.102	-.023
q27	.015	.065	-.058	.120	.306	.106	.064	-.028	-.016	-.016	-.016	.111	-.086	-.277
q28	-.021	.099	.026	.073	.077	.040	-.024	.039	.051	-.120	-.094	.134	.006	-.029

	q15	q16	q17	q18	q19	q20	q21	q22	q23	q24	q25	q26	q27	q28
q1	-.007	.010	.079	.033	.046	-.058	.024	-.016	-.090	-.014	-.055	-.073	-.106	-.025
q2	-.026	-.050	-.002	.000	.083	-.049	-.014	-.080	-.083	.038	.037	.004	-.053	-.060
q3	.069	.097	-.064	-.011	.042	.077	.024	.115	.014	.003	-.017	.051	.034	-.008
q4	-.018	.110	.000	.029	-.048	-.002	-.046	.074	-.091	.018	-.016	-.058	-.099	-.081
q5	.236	.280	.310	.227	.251	.219	.326	.189	-.108	-.246	-.119	-.151	-.240	-.062
q6	.105	.167	.131	.091	.208	.170	.178	.025	-.077	-.171	-.032	-.002	-.110	-.019
q7	.219	.178	.125	.047	.186	.178	.178	.250	.037	-.063	.038	-.056	-.071	.015
q8	.191	.220	.238	.096	.107	.189	.070	.095	-.086	-.074	-.080	-.036	-.045	-.027
q9	.279	.203	.196	.098	.186	.143	.137	.129	-.004	-.105	-.208	-.094	-.088	-.023
q10	.197	.307	.267	.115	.256	.228	.280	.321	.038	-.105	-.109	-.135	-.133	.033
q11	.236	.210	.187	.134	.318	.187	.166	.248	-.043	-.018	-.050	.031	-.036	.065
q12	.107	.259	.267	.161	.276	.235	.294	.154	-.110	-.112	-.125	-.225	-.204	-.048
q13	.091	.017	.009	.040	.071	.072	-.022	.212	.133	.005	.056	.124	.098	.005
q14	.043	-.057	-.195	-.061	-.104	-.076	-.091	-.116	.075	.139	.249	.202	.290	.026
q15	1.000	.436	.411	.276	.338	.453	.268	.300	-.022	-.055	-.283	-.090	-.014	.010
q16	.436	1.000	.589	.424	.386	.514	.343	.439	-.116	-.124	-.248	-.222	-.238	-.069
q17	.411	.589	1.000	.363	.431	.536	.443	.398	-.105	-.258	-.346	-.255	-.168	.009
q18	.276	.424	.363	1.000	.321	.368	.405	.258	-.038	-.098	-.140	-.103	-.015	-.031
q19	.338	.386	.431	.321	1.000	.512	.495	.298	-.111	-.153	-.163	-.172	-.140	.118
q20	.453	.514	.536	.368	.512	1.000	.472	.380	-.018	-.108	-.213	-.141	-.122	.085
q21	.268	.343	.443	.405	.495	.472	1.000	.303	.006	-.122	-.178	-.146	-.029	.097
q22	.300	.439	.398	.258	.298	.380	.303	1.000	.073	-.057	-.154	-.157	-.154	-.066
q23	-.022	-.116	-.105	-.038	-.111	-.018	.006	.073	1.000	.317	.338	.298	.373	.025
q24	-.055	-.124	-.258	-.098	-.153	-.108	-.122	-.057	.317	1.000	.373	.304	.295	-.011
q25	-.283	-.248	-.346	-.140	-.163	-.213	-.178	-.154	.338	.373	1.000	.405	.431	-.024
q26	-.090	-.222	-.255	-.103	-.172	-.141	-.146	-.157	.298	.304	.405	1.000	.477	.078
q27	-.014	-.238	-.168	-.015	-.140	-.122	-.029	-.154	.373	.295	.431	.477	1.000	.107
q28	.010	-.069	.009	-.031	.118	.085	.097	-.066	.025	-.011	-.024	.078	.107	1.000

Table 2 shows the correlation **matrix** showing how each of the 28 items is associated with each of the other 27. We observe that some of the correlations are high and some are low (i.e., near zero). The high correlations indicate that two items are associated and will probably be grouped together by the factor analysis. The **determinant** (located under the correlation matrix) should be more than.00001. Here, it is.001 so this assumption is met. If the determinant is zero, then a factor analytic solution cannot be obtained, because this would require dividing by zero. This would mean that at least one of the items can be understood

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.798
Bartlett's Test of Sphericity	Approx. Chi-Square	1709.952
	Df	378
	Sig.	.000

Table 4. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.388	19.241	19.241	5.388	19.241	19.241	3.898	13.922	13.922
2	2.490	8.893	28.134	2.490	8.893	28.134	2.685	9.589	23.511
3	1.937	6.916	35.050	1.937	6.916	35.050	2.016	7.200	30.711
4	1.677	5.988	41.038	1.677	5.988	41.038	1.720	6.141	36.853
5	1.278	4.566	45.604	1.278	4.566	45.604	1.588	5.671	42.523
6	1.208	4.315	49.919	1.208	4.315	49.919	1.449	5.174	47.697
7	1.156	4.128	54.046	1.156	4.128	54.046	1.383	4.938	52.635
8	1.053	3.760	57.806	1.053	3.760	57.806	1.293	4.616	57.251
9	1.008	3.600	61.406	1.008	3.600	61.406	1.163	4.155	61.406
10	.932	3.327	64.733						
11	.877	3.133	67.866						
12	.826	2.948	70.815						
13	.760	2.715	73.529						
14	.746	2.665	76.195						
15	.689	2.460	78.654						
16	.645	2.303	80.957						
17	.620	2.214	83.171						
18	.576	2.059	85.230						
19	.558	1.993	87.223						
20	.529	1.889	89.112						
21	.500	1.784	90.896						
22	.469	1.673	92.570						
23	.422	1.506	94.076						
24	.394	1.407	95.483						
25	.339	1.212	96.696						
26	.329	1.176	97.872						
27	.318	1.135	99.007						
28	.278	.993	100.000						

Extraction Method: Principal Component Analysis

as a linear combination of some set of the other items. Moreover, from **Table 2** we see than no correlation is greater than.9 suggesting that there is no multicollearity.

The **Kaiser-Meyer-OIkin (KMO)** measure should be greater than.70 to be good, and is inadequate if less than.50. The KMO test tells one whether or not enough items are predicted by each factor.for our data, we observe from **Table 3** that the KMO statistic is.798 which between .7 and .8 which is in good category, showing that **the sample size** is adequate for Principal component (factor) analysis. The **Bartlett** test should be significant (i.e., a significance value of less than.05); this means that the variables are correlated highly enough to provide a reasonable basis for factor analysis. We see from **Table 3** that Bartlett's Test of Sphericity is highly significant (p=.000<.05) for this data.

Table 4 shows the initial solution that the computer has displayed with the option that the numbers of factors are not fixed. SPSS automatically fixed the number of factors to be nine. That is it provides the number of factors whose Eigen values are greater than one. But **Table 5** provides the factors according to the former research results (Wiliams S).

The Total Variance Explained, in **Table 5** shows how the variance is divided among the 28 possible factors. SPSS provides nine factors having **eigenvalues** (a measure of explained variance) greater than 1.0, which is a common criterion for a factor to be useful (see **Table 4**). When the eigen value is less than 1.0, this means that the factor explains less information than a single item would have explained. Most researchers would not consider the information gained from such a factor to be sufficient to justify keeping that factor. For this data, we are forced to take only 5 factors and make the SPSS to group items under the 5 factors. This is because of the suggestion of Williams. S., University of Brighton, suggested taking only 5 factors. These 5 factors explain about 45% of the total variance were displayed in **Table 5**.

After extraction of factors based on Williams.S, I observe the 5 factors explain 45% of the variance and I go to rotation step. I didn't apply default extraction step since the components were extracted to be 5 from Williams.S research. On the basis of Williams.S, we assume the factors are not correlated and apply orthogonal (var Max) rotation to get the following result (see **Table 6**).

Table 5. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.388	19.241	19.241	5.388	19.241	19.241	4.490
2	2.490	8.893	28.134	2.490	8.893	28.134	3.070
3	1.937	6.916	35.050	1.937	6.916	35.050	2.066
4	1.677	5.988	41.038	1.677	5.988	41.038	3.362
5	1.278	4.566	45.604	1.278	4.566	45.604	1.308
6	1.208	4.315	49.919				
7	1.156	4.128	54.046				
8	1.053	3.760	57.806				
9	1.008	3.600	61.406				
10	.932	3.327	64.733				
11	.877	3.133	67.866				
12	.826	2.948	70.815				
13	.760	2.715	73.529				
14	.746	2.665	76.195				
15	.689	2.460	78.654				
16	.645	2.303	80.957				
17	.620	2.214	83.171				
18	.576	2.059	85.230				
19	.558	1.993	87.223				
20	.529	1.889	89.112				
21	.500	1.784	90.896				
22	.469	1.673	92.570				
23	.422	1.506	94.076				
24	.394	1.407	95.483				
25	.339	1.212	96.696				
26	.329	1.176	97.872				
27	.318	1.135	99.007				
28	.278	.993	100.000				

Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 6. Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
q20	.764				
q17	.712				
q16	.693				
q21	.673				
q18	.641				
q19	.633				
q15	.600				
q22	.524				
q10		.605			
q7		.593			
q12		.591			
q11		.559			
q9		.473			
q8		.466			
q13		.449			
q6		.437			
q5					
q27			.732		
q26			.680		
q25			.678		
q23			.628		
q24			.598		
q14			.438		
q1				.859	
q2				.785	
q3				-.733	
q4					.640
q28					-.586

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

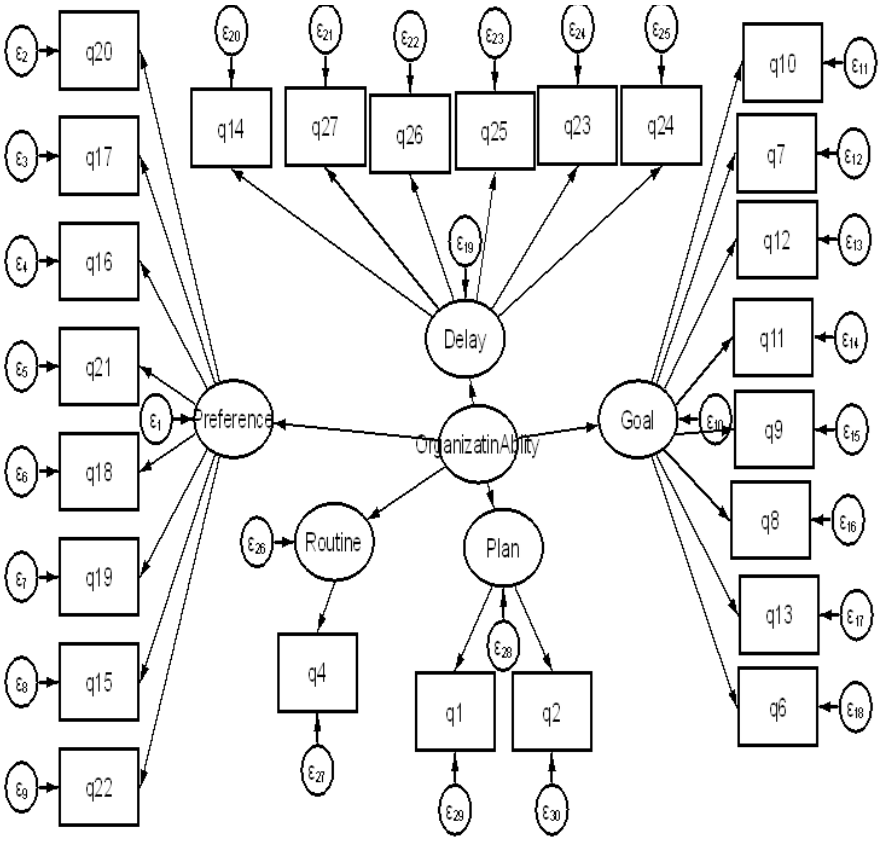

Figure 2. Initial path diagram containing BCTE data set

Table 6 answers the question "which items have high positive loadings on which component?"

I tested the proposed model by William.S in terms of fresh data from Bonga College of Teacher education. The rotated component matrix in **Table 6** categorize q1 and q2 which seem planning approach in one group, q14, q23, q24, q25, q26, and q27 which seem as acceptance for delay are grouped in other category, q15, q16,q17, q18, q19, q20, q21, and q22 which seem preference for organization were grouped in one another class, q6, q7, q8, q9, q10, q11, q12, q13 which seem goal achievement are grouped in other category and q4 which seems preference for routine is grouped in one category. q3, q28 need edition due to their negative loading, because it seems that a participant who is really high on planning will be shown as low by these two questions. Hence, I didn't include these items. q5 is suppressed from any of the factors due to their small factor loadings (<.4). This is summarized by the following diagram, **Figure 2**.

But, because of only q4 is in factor preference for routine and only q1 and q2 are loaded in factor planning approach. Taking these items under their corresponding construct will sacrifice the internal consistency reliability. These imply that the two constructs namely, preference for routine and planning approach were not working in this case. The rotated component matrix in **Table 6** along with the scree plot at **Figure 3** suggests that the components according to this data have to be reduced to 3.

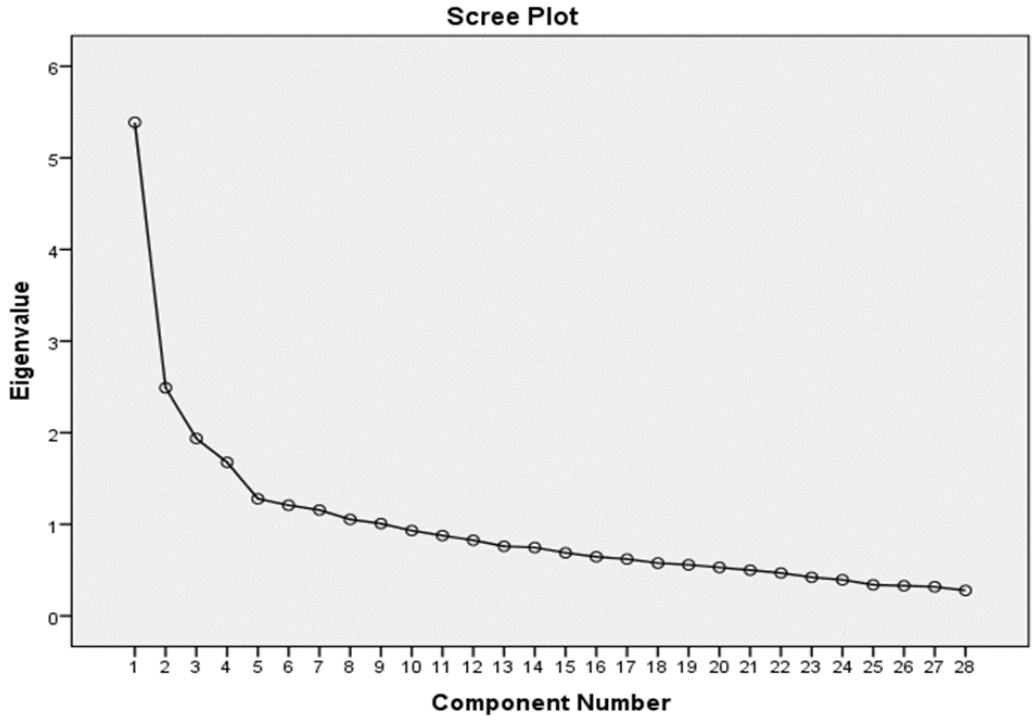

Figure 3. Scree plot by Williams suggestion

Table 7. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.155	23.433	23.433	5.155	23.433	23.433	3.805	17.293	17.293
2	2.340	10.637	34.070	2.340	10.637	34.070	2.756	12.527	29.820
3	1.637	7.439	41.509	1.637	7.439	41.509	2.571	11.689	41.509
4	1.164	5.292	46.801						
5	1.155	5.249	52.050						
6	1.036	4.709	56.759						
7	.934	4.247	61.006						
8	.921	4.187	65.192						
9	.820	3.727	68.919						
10	.810	3.683	72.602						
11	.712	3.235	75.838						
12	.692	3.145	78.983						
13	.622	2.828	81.811						
14	.570	2.592	84.404						
15	.552	2.508	86.911						
16	.514	2.337	89.248						
17	.486	2.208	91.456						
18	.450	2.047	93.503						
19	.412	1.874	95.377						
20	.360	1.637	97.013						
21	.351	1.594	98.607						
22	.306	1.393	100.000						

Extraction Method: Principal Component Analysis

From the scree plot in **Figure 2** we observe that the inflection point occurs at component 4, suggesting the components to be 4-1= 3. So, we go back to extraction of 3 factors and to orthogonal (Var max) rotation of these factors again. Doing so, some of the items were suppressed. The variance explained was 41.509% and the scree- plot with these 22 items again suggested accepting 3 constructs (see **Table 7** and **Figure 4**).

Back factor extraction

See **Table 7** and **Figure 4**.

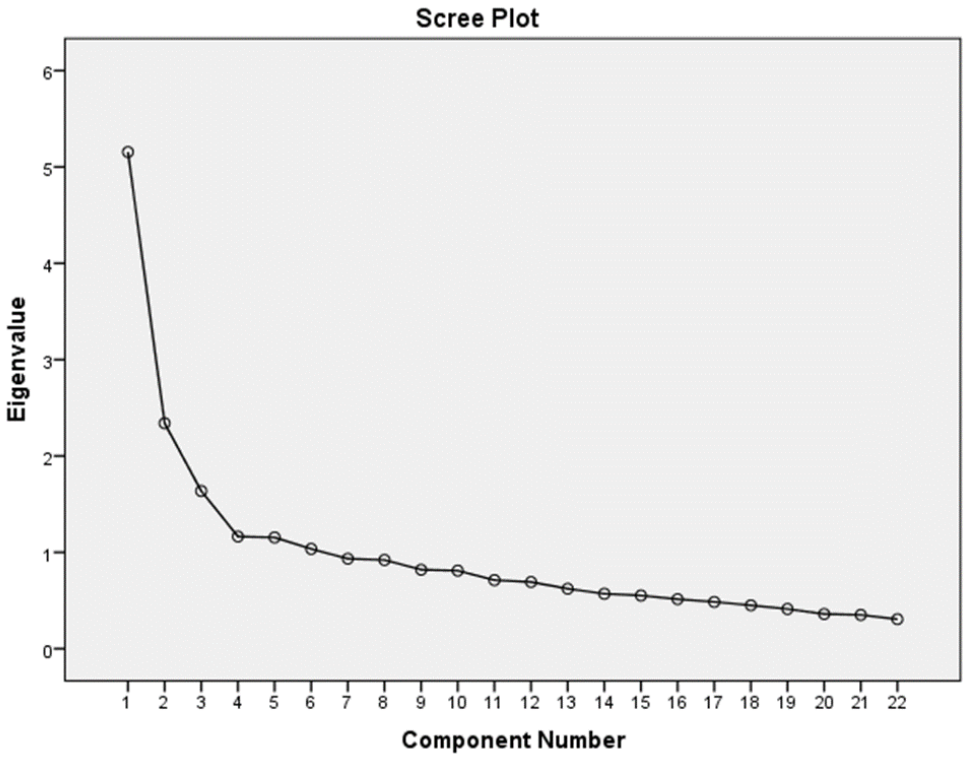

Figure 4. Scree plot after back extraction

Table 8. Rotated Component Matrix[a]

	Component		
	1	**2**	**3**
q20	.764		
q17	.722		
q16	.706		
q21	.671		
q18	.653		
q19	.624		
q15	.610		
q22	.543		
q27		.753	
q26		.691	
q25		.678	
q23		.637	
q24		.587	
q14		.432	
q10			.618
q7			.585
q11			.577
q12			.572
q8			.488
q9			.482
q13			.464
q6			.449

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Factor rotation

Orthogonal Rotation: We note from **Table 8** that orthogonal rotation is applied and we retain items:

- q20 q17, q16, q21, q18, q19, q15 and q 22 are also grouped in the same factor - likely to be Preference for organization.
- q10, q7, q12, q11, q9, q8, q13, and q6 are grouped in an other factor - likely to be goal achievement.
- Finally, q27, q26, q25, q23, q24 and q14 grouped under another factor - likely to be acceptance of delay.

Table 9. Pattern Matrix[a]

	Component		
	1	2	3
q20	.784		
q17	.720		
q16	.702		
q18	.701		
q21	.687		
q15	.617		
q19	.610		
q22	.531		
q27		.762	
q26		.686	
q25		.662	
q23		.654	
q24		.587	
q14		.434	
q10			.602
q7			.593
q11			.570
q12			.559
q13			.496
q8			.490
q9			.476
q6			.455

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Table 10. Structure Matrix

	Component		
	1	2	3
q20	.779		
q17	.760		
q16	.745		
q21	.685		
q19	.668		
q18	.634		
q15	.630		
q22	.581		
q27		.756	
q26		.703	
q25		.699	
q23		.628	
q24		.596	
q14		.438	
q10			.651
q12			.603
q11			.599
q7			.594
q9			.503
q8			.502
q6			.458
q13			.447

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Table 11. Overall Reliability Statistics

Cronbach's Alpha	N of Items
.718	22

Oblique Rotation: **Tables 9** and **10** show the results of oblique rotation, it gives the same information as Orthogonal rotation, but it is not important as we assume the components (factors) to be uncorrelated from the very beginning.

Reliability statistics

From **Table 11** we see that overall, 22 items has reliability of.718, which is good.

Table 12. Factor 1 Reliability Statistics

Cronbach's Alpha	N of Items
.842	8

Table 13. Factor 1 Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q15	28.45	122.500	.503	.832
q16	29.03	114.832	.653	.813
q17	28.93	112.024	.662	.811
q18	29.18	121.698	.489	.834
q19	29.24	119.755	.572	.824
q20	28.75	111.619	.676	.810
q21	29.04	117.111	.559	.825
q22	29.11	121.135	.480	.835

Table 14. Reliability Statistics for facror 2

Cronbach's Alpha	N of Items
.724	6

Table 15. Item-Total Statistics Item statistic for factor 2

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q23	15.61	51.853	.417	.699
q24	15.90	52.596	.425	.695
q25	16.25	49.669	.553	.658
q26	16.18	50.092	.514	.669
q27	15.87	48.041	.579	.648
q14	15.86	57.126	.272	.738
q23	15.61	51.853	.417	.699
q24	15.90	52.596	.425	.695

Table 16. Reliability Statistics for Factor 3

Cronbach's Alpha	N of Items
.670	8

Table 17. Item-Total Statistics for factor 3

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q8	29.70	70.293	.340	.646
q9	29.05	67.148	.336	.646
q10	28.57	62.187	.464	.612
q11	29.86	66.833	.407	.630
q12	28.69	62.842	.444	.618
q13	29.47	69.899	.232	.673
q7	29.53	66.827	.387	.634
q6	29.50	68.469	.292	.657

We see from **Table 12** the reliability for factor1 (preference for organization) items is alpha=.842 and we note from **Table 13** that further deletion of item will not increase the reliability considerably.

We see from **Table 14** the reliability for factor1 (Goal Achievement) items is alpha=.724 and we note from **Table 15** that further deletion of item will not increase the reliability considerably.

We see from **Table 16** the reliability for factor1 (Goal Achievement) items is alpha=.67 and we note from **Table 17** that further deletion of item will not increase the reliability considerably.

RESULTS AND DISCUSSION

A principal component analysis (PCA) was conducted on the 28 items responded by 240 participants from Bonga College of Teacher education. The main objective is to construct a scale which can reliably measure the organizational ability of staff members of Bonga College of teacher Education.The questionnaire was adapted from Williams, S., University of Brighton). She predicted five factors to do with organizational ability: (1) preference for organization; (2) goal achievement; (3) planning approach; (4) acceptance of delays; and (5) preference for routine. *Williams' questionnaire contains 28 items using a 7-point Likert*

scale (1 = strongly disagree, 4 = neither, 7 = strongly agree). Transition of the questionnaire to Amharic language is performed to make it more clear for participants. Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO =.798 (in **Table 3**) which is 'good' according to Field, 2009, and all KMO values for individual items is well above the acceptable limit of.5. Bartlett's test of sphericity χ^2 (378) = 1709.952, *p=.000* <.001, indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Nine components (in **Table 4**) had eigenvalues over Kaiser's criterion of 1 and in combination explained 61.406% of the variance. But the Williams.S suggest only 5 components, accordingly I order the SPSS to extract the 5 components. These five components (in **Table 5**) explained 45.604% of the total variance. Since the dimensions are *theoretically independent,* Orthogonal (var Max) rotation has initially been performed. The results from the orthogonal rotation (in **Table 6**) and Scree plot by 28 items (in **Figure 3**) suggested the reduce the factors to three. Extraction of 3 factors and applying orthogonal rotation again, brought acceptable distribution of items into each of the three factors. Accordingly, over all 22 items with over all reliability of.718 is retained and distributed though the three factors. Consequently, items: q20, q17, q16, q21, q18, q19, q15, and q22 with Crobach alpha of.824 are retained in factor 1 (preference for organization), items q10, q7, q12, q11, q9, q8, q13, and q6 with Crobach alpha of.670 are retained for facror 2 (Goal achievement) and items q27, q26, q25, q23, q24, and q14 with Cronbach alpha of.724 are retained for Factor 3 (Aceptace of Delay). Hence, we have the following factors and items retained.

Component 1 (Preference for Organization) Contains Items

17. I like to be organized
22. I like to work in an organized environment
16. My workspace is messy and disorganized
19. I feel that I am wasting my time
20. I forget the plans I have made
15. I make 'to do' lists and achieve most of the things on it
18. Interruptions to my daily routine annoy me
21. I prioritize the things I have to do

Component 2 (goal achievement) contains items:

12. I have many different plans relating to the same goal
9. I like to know what I have to do in a day
13. I like to have my documents filed and in order
8. I am an organized person
10. Disorganized people annoy me
6. I feel frustrated if I can't find something I need
7. I find it difficult to follow a plan through
11. I leave things to the last minute

Component 3 (Acceptance of Delay) contains items:

27. I put tasks off to another day
25. I change rather aimlessly from one activity to another during the day
26. I have trouble organizing the things I have to do
14. I find it easy to work in a disorganized environment
23. I feel relaxed when I don't have a routine
24. I set deadlines for myself and achieve them

Finally, **Figure 5** shows the path diagram how each item is related with the factor and the estimate among each items, latent variables and errors. It is shown in **Appendix 2** that the loading (beta values) of each item for their corresponding factors are significant, indicating that the factors have contribution to infer the latent variable that they were categorized in.

Construct Validity

Items observed in **Figure 5** that measuring the same construct and that we expect to be related are actually related in empirical demonstrative manner and measures that are measuring different constructs and that we don't expect to be related are actually not related in an empirical demonstrable manner. This information displayed in appendex-5 depicted that the equation level fit index was acceptable. That is the correlation between the dependent variable or the construct and the measurement variables are considerable as well as the squared correlation was also more than 11%. These imply more than 11% of variation in latent variables can be expressed by each item under it. Moreover, 82.65% of the variation in organization ability was explained by variation in 'Preferences of staffs to be organized', 42.7% of variation in organization ability was explained by variation in "goal achievement' and 17.18 of the variation in organization ability was explained by variation in 'acceptance for Delay'. See **Appendix 5**. Thus each items independently listed under each construct, namely under 'Preference', 'Goal', and 'Delay' was independent measures of the corresponding construct, and each constructs listed under latent variable, the organization ability, was independent predictors of the latent variable. In other words, the constructs were measuring the latent variable significantly as

they purport to measure and the items were measuring the constructs as they purport to measure significantly. The structural equation modeling table at **Appendix 2** show each constructs as well as items were significantly measuring what is supposed to be measured. Thus. this study was construct-wise valid.

The Model Fit

The results of commonly used goodness-of-fit indices indicated that the model fit the data reasonably well. That is, the comparative fit index (CFI: .908) value was close to the recommended criterion value of.95, and root mean square error of approximation (.052) was lower than the recommended level of .06 (Hu & Bentler, 1999) (see **Appendix 3**).

Modification Index

MI stands for modification index and is an approximation to the change in the model's goodness-of-fit $\chi 2$ if the path were added. Kline,(2005) suggests to omit the path that has the largest change in $\chi 2$ observed and the modification indices for the model, depicted at **Appendix 4**, identified to modify items in 'Preference' and 'Goal', but none of them has provided to be considerable increase in chi-square value. Thus, the model was not to be modified.

CONCLUSION

The organizational ability of staffs in Bonga College of teacher education significantly expressed in terms of Constructs: 'preference of the staff to be organized', 'goal achievement of the staff' and 'acceptance of the staff for delay' in such a way that:

$$OrganizationalAbility = .91Preference + .65Goal - .41Delay + \varepsilon$$

The construct 'acceptance for delay' has significant negative contribution, where as 'goal achievement' and 'preference to be organized' have significant positive contributions for organizational ability of the staff. That is, a unit increase in preference will result .91 units increase in organizational ability, a unit increase in Goal will increase the organizational ability by .65 units. Similarly, a unit increase in Delay will decrease the organizational ability by .41 units (see **Figure 5**).

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Declaration of interest: No conflict of interest is declared by authors.

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APPENDIX 1

The Questionnaire

Translation of the questionnaire to Amharic language

ቦንጋ መምህራን ትምህርት ኮሌጅ

በሰራተኞች የሚሞላ የፅሁፍ መጠይቅ

ውድ የጥናቱ ተሳታፊ፡-

ይህ የፅሁፍ መጠይቅ ሰራተኞች በእቅድ ላይ የሚኖራቸውን አመለካከት ለማጥናት የሚያገለግል መረጃ ለመሰብሰብ ታስቦ የተዘጋጀ ነው።

ተሳታፊዎች የሚሰጡት ታማኝና ቅን ምላሽ ለጥናቱ የሚኖረው ዋጋ በጣም ከፍተኛ ነው። ስለሆነም በዚህ የፅሁፍ መጠይቅ ለቀረቡ ጥያቄዎች ታማኝና ቅን ምላሽ በመስጠት እንድትተባበሩን በትህትና እንጠይቃለን። በዚህ መጠይቅ የሚሰበሰበው መረጃ ሁሉ ሚስጢርነቱ የሚጠበቅ ከመሆኑም በላይ ጥቅም ላይ የሚውለውም ለዚህ **ምርምር ስራ ብቻ** ይሆናል።

ለሚደረግልን ትብብር በቅድሚያ እናመሰግናለን!

ክፍል አንድ፡ የተሳታፊው ዳራዊ መረጃ

ተገቢውን መልስ የ"√" ምልክት በማድረግ ወይም መረጃውን ክፍት ቦታው ላይ በመፃፍ መልስ/ሺ።

1. ዕድሜ፡ _____

2. ፆታ፡ ሴት ☐ ወንድ ☐

3. የትምህርት ደረጃ ፡ _____ የትም/ክፍል ፡ _____

4. የአገልግሎት ዘመን _____

ክፍል ሁለት፡ ሰራተኞች በእቅድ ላይ ያላቸዉ አመለካከት

ከዚህ ቀጥሎ የእቅድ አመለካከትን የሚያመለክቱ ዓረፍተ ነገሮችና መልሶቻቸው ቀርበዋል። ዓረፍተ ነገሩን በጥንቃቄ ካነበብክ/ሽ በኋላ ከፊት ለፊት ከተዘረዘሩት (1-7) ቁጥሮች ከሃሳቡ ጋር የሚኖርህን/ሽን የስምምነት መጠን በትክክል የሚገልፅ ቁጥርን በመክበብ መልስ/ሺ።

#	ዐረፍተ ነገር	አጥብቄ አልስማማም	አልስማማም	በተወሰነ መልኩ አልስማማም	አልወሰንኩም	በተወሰነ መልኩ እስማማለሁ	እስማማለሁ	አጥብቄ እስማማለሁ
1	ሁል ጊዜ ለሚያከናቸዉ ተግባራት እቅድ ቢኖረኝ እመርጣለሁ።	1	2	3	4	5	6	7
2	ነገሮች ወደ እቅድ የማያመሩ ከሆነ ቅር እሰኛለሁ።	1	2	3	4	5	6	7
3	የሚፈልገዉን በጣም አስፈላጊ ነገር በቀን አከናዉናለሁ።	1	2	3	4	5	6	7
4	ሁሉንም ተግባራት አንዴ በእቅዴ ተጣብቄ እፈጽማለሁ።	1	2	3	4	5	6	7
5	ሳይታሰብ በድንገት ወይም ሳይታወቅ በተከናወነ ነገር እደሰታለሁ።	1	2	3	4	5	6	7
6	የሚፈልገዉን ነገር ማግኘት ካልቻልኩ ቅር እሰኛለሁ።	1	2	3	4	5	6	7
7	እቅድን ተከታትሎ መተግበር ከባድ ሆኖ አገኝቻለሁ።	1	2	3	4	5	6	7
8	ነገሮችን በጥሩ ሁኔታ አደራጃለሁ። :	1	2	3	4	5	6	7
9	በቀን የማከናዉናቸዉን ተግባራት ለማወቅ እጥራለሁ።	1	2	3	4	5	6	7
10	ያልተደራጀ ተግባራት የሚያከናዉኑ ሰዎች ያበሳጩኛል።	1	2	3	4	5	6	7
11	ነገሮችን ወደ አሥራ አንደኛዉ ሰዓት ለመጨረስ እጥራለሁ። እጨነቃለሁ።	1	2	3	4	5	6	7
12	በአንድ ግብ ላይ የተለያዩ ብዙ እቅዶች አሉኝ ።	1	2	3	4	5	6	7
13	መረጃዎቼን በፋይልና በቅደም ተከተል በተደራጀ መልኩ አስቀምጣለሁ።	1	2	3	4	5	6	7
14	ምስቅልቅል ያለ ቦታ ላይ ሥራ መሥራት ይቀለኛል።	1	2	3	4	5	6	7
15	የሚያከናዉናቸዉን ተግባራት ዘርዝሬ አብዛኞችን እተገብራለሁ	1	2	3	4	5	6	7
16	የሚሰራበት ቦታ የተተራመሰና የተዝረከረከ ነዉ።	1	2	3	4	5	6	7
17	የተደራጀሁ ቢሆን እመርጣለሁ	1	2	3	4	5	6	7
18	በቀን የሚያከናወናቸዉን ተግባራት መረበሽ ያስቆጣኛል	1	2	3	4	5	6	7
19	ጊዜዬን የማባክን መስሎ ይታየኛል	1	2	3	4	5	6	7
20	ያቀድኳቸዉን እቅዶች እረሳቸዋለሁ	1	2	3	4	5	6	7
21	የማከናዉናቸዉን ተግባራት በቅደም ተከተላቸዉ አደራጃለሁ	1	2	3	4	5	6	7
22	በተደራጀ ቦታ መሥራት እመርጣለሁ	1	2	3	4	5	6	7
23	የሚያከናዉናቸዉ መደበኛ ተግባራት በሌሎች ጊዜ ያስደስተኛል	1	2	3	4	5	6	7
24	ለማከናዉናቸዉ ተግባራት በራሴ ገደብ እሰጣለሁ	1	2	3	4	5	6	7
25	በቀን ከአንዱ ተግባር ወደ ሌላ ተግባር ያለ እቅድ እገባለሁ	1	2	3	4	5	6	7
26	የማከናወናቸዉን ተግባራት ለማደራጀት እቸገራለሁ	1	2	3	4	5	6	7
27	ተግባራትን ለሌላ ቀን አስተላልፋለሁ	1	2	3	4	5	6	7
28	እቅድና መረሃ-ግብር ተግባራቴን የሚገድቡኝ መስሎ ይታየኛል	1	2	3	4	5	6	7

Back translation

Bonga College of Teacher Education

Questionnaire to be filled by staff members

Dear participant,

This questionnaire is aimed to assess the ability of staff members on the constructs of organization.

Participants′ genuine and honest response has greatest value on the study. Hence you are kindly requested to give your genuine and honest response on the questionnaires provided below. The data collected through this question will be kept confidential and the data will be used for the research purpose only.

Thank you in advance for your cooperation!

Part I: participants′ background information

Answer the following by Putting "√" mark on the box or by writing your background information on the space provided.

1. Age: _____

2. sex : F ☐ M ☐

3. Qualification : _____ Field studied : _____

4. Work Experience in year _____

Part II : Staffs′ Attitude on the Constructs of Organizational Ablity

Sentences which show the attitude on the constructs of organizational ability and their corresponding possible answers were provided below. Read each of the sentences carefully and circle one of the numbers (1-7) which correspond to you level of agreement for each sentence.

#	Sentence	Strongly disagee	Disagree	Somewhat disagree	Nether Agree or Disagree	Somewhat agree	Agree	Strongly Agree
1	I would like if I have a plan for every activities I have performing.	1	2	3	4	5	6	7
2	I feel bad if things go to wards planning	1	2	3	4	5	6	7
3	I perform daily every important task to be performed	1	2	3	4	5	6	7
4	I perform all of my activities sticking to my plan	1	2	3	4	5	6	7
5	I feel good on things performed unfortunately	1	2	3	4	5	6	7
6	I am not confortable if I didit get things I need.	1	2	3	4	5	6	7
7	I get difficulty on applying plan into practice.	1	2	3	4	5	6	7
8	I organize things in good manner	1	2	3	4	5	6	7
9	I try to know my daily activities to be performed	1	2	3	4	5	6	7
10	I fee angry with unorganized people	1	2	3	4	5	6	7
11	I try to complete my tasks at last days	1	2	3	4	5	6	7
12	I have many plans on the same goal	1	2	3	4	5	6	7
13	I organize my documents in file in orderly manner	1	2	3	4	5	6	7
14	I want to work in complicated working environment	1	2	3	4	5	6	7
15	I list my activities to be performed and I perform most of them	1	2	3	4	5	6	7
16	My working place unorganized.	1	2	3	4	5	6	7
17	I want to be organized	1	2	3	4	5	6	7
18	I feel bad if some body interrupt my daily activities	1	2	3	4	5	6	7
19	I feel that I am wasting my time	1	2	3	4	5	6	7
20	I forget activities I have planned	1	2	3	4	5	6	7
21	I organize activities that I will perform in order.	1	2	3	4	5	6	7
22	I want to work in organized environment	1	2	3	4	5	6	7
23	I feel good if I don′t have activities performed regularly.	1	2	3	4	5	6	7
24	I have deadline for my activities	1	2	3	4	5	6	7
25	I go from activity to an other haphazardly.	1	2	3	4	5	6	7
26	I have difficulty to organize my activities	1	2	3	4	5	6	7
27	I transfer my daily activities to other day.	1	2	3	4	5	6	7
28	I feel pans and programs limit my activities	1	2	3	4	5	6	7

APPENDIX 2

SEM Results and their Significance

Beta values for the latent variables and their significance

Structural equation model — Number of obs = 240
Estimation method = ml
Log likelihood = -10962.813

Standardized	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
Preference						
OrganizationalAblity	.909142	.1314585	6.92	0.000	.6514882	1.166796
Goal						
OrganizationalAblity	.6541566	.1058468	6.18	0.000	.4467007	.8616124
Delay						
OrganizationalAblity	-.4145976	.0866901	-4.78	0.000	-.5845072	-.2446881

Factor-1 (Preference for organization) items loading and their significance

		OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Measurement							
q22							
	Preference	.5382746	.0511995	10.51	0.000	.4379254	.6386238
	_cons	1.768665	.103362	17.11	0.000	1.56608	1.971251
q15							
	Preference	.5606046	.0496708	11.29	0.000	.4632516	.6579576
	_cons	2.229053	.120491	18.50	0.000	1.992895	2.46521
q19							
	Preference	.6311779	.0448782	14.06	0.000	.5432181	.7191376
	_cons	1.859514	.1066321	17.44	0.000	1.650519	2.068509
q18							
	Preference	.518295	.0525482	9.86	0.000	.4153025	.6212876
	_cons	1.789999	.1041243	17.19	0.000	1.585919	1.994079
q21							
	Preference	.6037143	.0469865	12.85	0.000	.5116224	.6958062
	_cons	1.771571	.1034656	17.12	0.000	1.568782	1.97436
q16							
	Preference	.7264602	.0371337	19.56	0.000	.6536795	.799241
	_cons	1.869205	.1069845	17.47	0.000	1.65952	2.078891
q17							
	Preference	.7449596	.0353284	21.09	0.000	.6757173	.8142019
	_cons	1.792042	.1041975	17.20	0.000	1.587819	1.996265
q20							
	Preference	.7333755	.0363125	20.20	0.000	.6622042	.8045468
	_cons	1.878892	.1073374	17.50	0.000	1.668514	2.089269

Factor-2 (Goal Achievement) its loadings and their significance

	Standardized	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
q10							
	Goal	.6548583	.0534327	12.26	0.000	.5501322	.7595845
	_cons	2.218145	.1200709	18.47	0.000	1.982811	2.45348
q7							
	Goal	.4242675	.0655954	6.47	0.000	.2957029	.5528321
	_cons	1.9923	.1115166	17.87	0.000	1.773732	2.210869
q11							
	Goal	.4739525	.0630629	7.52	0.000	.3503516	.5975535
	_cons	1.88854	.1076896	17.54	0.000	1.677472	2.099607
q12							
	Goal	.6296405	.0551966	11.41	0.000	.5214572	.7378238
	_cons	2.166882	.1181046	18.35	0.000	1.935401	2.398363
q8							
	Goal	.4094193	.0655047	6.25	0.000	.2810324	.5378062
	_cons	2.162032	.1179193	18.33	0.000	1.930914	2.393149
q9							
	Goal	.4068425	.0657151	6.19	0.000	.2780433	.5356418
	_cons	2.092978	.1152945	18.15	0.000	1.867005	2.318951
q13							
	Goal	.2280484	.0726638	3.14	0.002	.08563	.3704668
	_cons	1.820103	.1052059	17.30	0.000	1.613904	2.026303
q6							
	Goal	.336919	.0688516	4.89	0.000	.2019723	.4718657
	_cons	1.873696	.107148	17.49	0.000	1.663689	2.083702

Factor-3 (Delay) items loading and their significance

		OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
q27							
	Delay	.6835842	.0490216	13.94	0.000	.5875037	.7796648
	_cons	1.496925	.0939945	15.93	0.000	1.312699	1.681151
q26							
	Delay	.6382591	.0508438	12.55	0.000	.5386071	.7379112
	_cons	1.374573	.0900168	15.27	0.000	1.198144	1.551003
q25							
	Delay	.6725934	.0498436	13.49	0.000	.5749018	.770285
	_cons	1.380646	.0902102	15.30	0.000	1.203838	1.557455
q23							
	Delay	.4946447	.0594085	8.33	0.000	.3782063	.6110831
	_cons	1.572015	.0965146	16.29	0.000	1.38285	1.76118
q24							
	Delay	.503094	.0591564	8.50	0.000	.3871496	.6190384
	_cons	1.516748	.0946542	16.02	0.000	1.331229	1.702267
q14							
	Delay	.3431303	.0667417	5.14	0.000	.2123191	.4739416
	_cons	1.545389	.0956145	16.16	0.000	1.357988	1.73279

Variances of error and variance of the latent variable

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
var(e.q20)	2.481985	.2791614			1.99095 3.094127
var(e.q17)	2.415521	.276182			1.930578 3.022276
var(e.q16)	2.244493	.2518364			1.801407 2.796563
var(e.q21)	3.34199	.3379827			2.741077 4.074638
var(e.q18)	3.509042	.3402709			2.901668 4.24355
var(e.q19)	2.601314	.2673288			2.126755 3.181765
var(e.q15)	2.989452	.2942956			2.464878 3.625667
var(e.q22)	3.625275	.3538436			2.994055 4.389572
var(e.q10)	2.801458	.3565502			2.182976 3.595167
var(e.q7)	3.22327	.3213707			2.651118 3.918901
var(e.q11)	2.856747	.2931925			2.336209 3.493269
var(e.q12)	2.951336	.3613282			2.321706 3.751718
var(e.q8)	2.54324	.2503772			2.09695 3.084512
var(e.q9)	3.737061	.3676893			3.08163 4.531895
var(e.q13)	4.597703	.4285681			3.829988 5.519305
var(e.q6)	4.014901	.3846865			3.327494 4.844316
var(e.q27)	2.536898	.3246182			1.97417 3.260031
var(e.q26)	2.729533	.3175881			2.172946 3.428687
var(e.q25)	2.388373	.3000672			1.867068 3.055232
var(e.q23)	3.788894	.3847151			3.105156 4.623186
var(e.q24)	3.40293	.3481303			2.784662 4.15847
var(e.q14)	3.962274	.377273			3.287731 4.775213
var(e.Preference)	.5009527	.6949696			.0330315 7.597401
var(e.Goal)	1.203322	.3783455			.6497543 2.22851
var(e.Delay)	1.842817	.3850597			1.223552 2.775507
var(OrganizationAblity)	2.387468	.7906956			1.247475 4.569235

LR test of model vs. saturated: chi2(206) = 325.75, Prob > chi2 = 0.0000

APPENDIX 3

Model Fit Index

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(225)	393.461	model vs. saturated
p > chi2	0.000	
chi2_bs(253)	2074.258	baseline vs. saturated
p > chi2	0.000	
Population error		
RMSEA	0.044	Root mean squared error of approximation
90% CI, lower bound	0.037	
upper bound	0.052	
pclose	0.901	Probability RMSEA <= 0.05
Information criteria		
AIC	28177.030	Akaike's information criterion
BIC	28468.797	Bayesian information criterion
Baseline comparison		
CFI	0.908	Comparative fit index
TLI	0.896	Tucker-Lewis index
Size of residuals		
SRMR	0.052	Standardized root mean squared residual
CD	0.984	Coefficient of determination

APPENDIX 4

Modification Indices

		MI	df	P>MI	EPC	Standard EPC
Structural						
Preference						
	q18	4.134	1	0.04	.1376831	.2479937
	q27	4.023	1	0.04	.1095011	.1964979
	q25	7.622	1	0.01	-.1535074	-.2636186
Delay						
	q17	6.955	1	0.01	-.2011404	-.3141309
	q12	5.250	1	0.02	-.1632156	-.2419447
	q13	7.497	1	0.01	.1354994	.200036
	q23	4.491	1	0.03	.2979323	.447311

APPENDIX 5

Equation Level Goodness of Fit

depvars	fitted	Variance predicted	residual	R-squared	mc	mc2
observed						
q22	5.104149	1.478874	3.625275	.2897395	.5382746	.2897395
q15	4.359566	1.370114	2.989452	.3142776	.5606046	.3142776
q19	4.323889	1.722575	2.601314	.3983855	.6311779	.3983855
q18	4.797899	1.288859	3.509041	.2686298	.518295	.2686298
q21	5.258594	1.916604	3.341989	.3644709	.6037143	.3644709
q16	4.752708	2.508215	2.244493	.5277444	.7264602	.5277444
q17	5.427708	3.012187	2.415521	.5549648	.7449596	.5549648
q20	5.370399	2.888414	2.481986	.5378397	.7333755	.5378397
q10	4.904843	2.10339	2.801453	.4288395	.6548583	.4288395
q7	3.930833	.7075615	3.223272	.1800029	.4242675	.1800029
q11	3.684375	.8276248	2.85675	.224631	.4739525	.224631
q12	4.88993	1.938599	2.951331	.3964471	.6296405	.3964471
q8	3.055399	.5121588	2.54324	.1676242	.4094193	.1676242
q9	4.478316	.7412547	3.737061	.1655209	.4068425	.1655209
q13	4.849931	.2522258	4.597705	.0520061	.2280484	.0520061
q6	4.52901	.514108	4.014902	.1135144	.336919	.1135144
q27	4.762222	2.225326	2.536896	.4672874	.6835842	.4672874
q26	4.605833	1.8763	2.729533	.4073747	.6382591	.4073747
q25	4.361389	1.973013	2.388376	.4523818	.6725934	.4523818
q23	5.016233	1.227339	3.788894	.2446734	.4946447	.2446734
q24	4.556094	1.153164	3.40293	.2531036	.503094	.2531036
q14	4.491042	.5287682	3.962273	.1177384	.3431303	.1177384
latent						
Preference	1.478874	1.222347	.2565266	.8265392	.909142	.8265392
Goal	2.10339	.9000845	1.203306	.4279208	.6541566	.4279208
Delay	2.225326	.382514	1.842812	.1718912	.4145976	.1718912
overall				.8512032		

mc = correlation between depvar and its prediction
mc2 = mc^2 is the Bentler-Raykov squared multiple correlation coefficient