

## CONFIRMATORY FACTOR ANALYSIS (CFA) OF THE ACCOUNTING TEACHER PROFESSIONAL IDENTITY SCALE (ATPIS)

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### ABSTRACT

This study aims to test the ATPIS which has previously been developed using exploratory Factor Analysis (EFA). This scale consists of five latent factors with 23 manifest variable items. The target population is Indonesian accounting teachers in Central Java who are members of the Accounting Subject Teachers' Conference (MGMP), totaling 1747 people. From the total population, 351 respondents were selected. The data analysis technique of this research was CFA and model fit analysis. The results showed that the proposed model was proven to be valid where the ATPI loading factor for the five factors had a value of more than 0.70. In contrast, the latent sub-construct variable in the manifest variable had a loading factor of more than 0.50. Revision of the model was done by eliminating one latent variable, APC3, a manifest variable from active in professional communities. The results of the model revision indicated that the overall loading factor value increased with the better model fit. Therefore, this ATPIS can be utilized as an instrument to measure the professional identity of accounting teachers. Nevertheless, it is still possible to develop a revised version of ATPIS with several new sub-construct latent variables that have not been tested.

**Keywords:** *Professional identity, teacher, accounting, scale*

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### INTRODUCTION

Professional identity is a concept that describes how a person perceives himself as a professional. This concept answers the question "who am I?" (Schwartz et al., 2011). Nevertheless, the definition of professional identity continues and develops (Goodolf & Godfrey, 2020; Jaspal & Breakwell, 2014) so it is possible that the meaning of professional identity in each profession can be different from one another. Beijaard et al. (2004) expressed that professional identity might be difficult to define. However, the meaning of professional identity can be done by considering each other's professional backgrounds, such as a doctor, medical student, student, teacher, accountant, etc. In interpreting professional identity, several fundamental components must be considered, including attributes, skills, knowledge, values, ethics, group identity, personal identity, and other contextual factors in a particular profession (Fitzgerald, 2020).

There are three primary phases in developing a teacher's professional identity: pre-service, beginner teacher, and experienced teacher (Ballantyne & Zhukov, 2017; Colliander, 2018; Hong, 2010). Each phase of the teacher's professional identity formation has different characteristics. In the phase as a pre-service teacher or student, professional identity is formed based on experience as a high school student, expectations regarding the teachers, teacher figures at school, and friendship factors in lectures. When becoming a beginner teacher, the teacher's professional identity is formed from experiences during classes and adjustments to different situations between lectures and activities at school. As a beginner teacher, idealism as a teacher is still strongly influenced by the educational process experienced. It is dissimilar when you become an experienced teacher. Professional identity is formed by experience, relationships with colleagues, school stakeholders, and problems faced both personally and institutionally (Brown & Heck, 2018). Nyström (2009) mentioned that the formation of professional identity in teachers is influenced by a dynamic process involving experiences faced by teachers during their careers.

Nevertheless, the form of professional identity for teachers may differ between subject teachers. For example, an English teacher has a professional identity as an artist (Nguyen, 2016), a mathematics teacher has a professional identity and can create an attractive learning environment (Losano et al., 2018), while a music teacher must have an identity as a musician. Therefore, accounting teachers certainly have a diverse concept of professional identity compared to other subject teachers. In addition, educators also need to have proper management and leadership skills such as making decisions, moving groups of people, motivating, and inspiring (Samsudin et al., 2022).

The professional identity of an accounting teacher is a combination of the professional concept of an experienced accounting teacher with the professional identity of an accountant (Syah et al., 2020). The variety of a teacher's professional identity, which consists of three stages, and an accountant's professional identity, can be perceived from the components of a professional identity that is expected to be possessed by an accounting teacher. As an accounting teacher, professional identities that the teacher must own are having a role as an artist to attract students to study joyfully, being a mother or father in school, a promoter, a wise judge, and accepting suggestions and criticism from students and colleagues. Furthermore, they must have the ability to assimilate changing accounting standards and the social context of teaching in a rapidly evolving technology. The learning concept of the teaching factory that has been implemented in Indonesian vocational schools (Rohmah et al., 2021) is related to teacher professional development. In the development of the digital age, the willingness of teachers to transform in teaching is strongly influenced by teacher competencies in the era of Education 4.0 (Abdullah et al., 2022).

The study of professional identity does not only focus on the definition of the concept of professional identity itself, but also on how to measure the professional identity of a particular individual or group. Five aspects outside the teacher can be used to identify a teacher's professional identity, namely the teaching and learning domain, student development domain, school development domain, professional

relationship, and services domain, and personal growth and development (Cheung, 2008). In addition to external factors from the individual teacher, there are also internal factors. Teachers' professional identity has at least three main individual components: subject matter, didactical, and teaching experience (Lentillon-Kaestner et al., 2018). On the other hand, Tan et al. (2017) also declared the existence of experience as an essential factor in measuring the professional identity of teachers in addition to knowledge of professional practice as a teacher, role as a role model, self-efficacy, and preference for the profession as a teacher. However, the scale development completed on these teachers does not lead to one particular subject teacher and is general to the teaching profession. Therefore, the measurement of professional identity for accounting teachers cannot fully implement the scale that has been formed.

Syah et al. (2022), using exploratory factor analysis, uncovered five factors that characterize the professional identity of accounting teachers in Indonesia. These factors are interpersonal skills, experiencing identity, cultural knowledge, blending, and being active in professional communities. Of the five factors, 23 question items describe each element. The five factors are still likely to transform. Therefore, a confirmatory factor analysis step on these factors and question items needs to be conducted. This study analysed the factors obtained from the exploratory factor analysis using second order-confirmatory factor analysis.

## RESEARCH METHOD

### *Participant and procedure*

This study was a quantitative study with a population of 1747 accounting teachers who are members of the Accounting Subject Teachers' Conference (MGMP) in Central Java, Indonesia. Respondents were spread across 34 districts/cities. The sampling technique used was cluster random sampling by calculating the proportion of the population in each district/city. The number of samples used was 351 respondents based on the Kierjje and Morgan table, which stated that the minimum sample of the total population is at least 317 respondents. Therefore, to anticipate errors, invalid data, and the non-return of the questionnaire, the number of respondents increased by 10%. Brebes Regency has a population of 6.58%. Therefore, the number of samples taken from the district was 23 respondents.

On the other hand, Banjarnegara Regency, with the smallest number of population members, 0.52%, has two respondents. The data collection technique employed was an online questionnaire via google forms. The researchers collaborated with the head of the Central Java MGMP to share links to the predetermined sample targets.

### *Variable latent and manifest*

Two types of variables were tested in this study: latent and manifest variables. The latent variable is a variable that cannot be directly measured, while the manifest variable is a variable that can be measured directly. The latent variable of Accounting Teacher Professional Identity (ATPI) is measured by five latent variables, while several manifest variables measure the five latent variables. The variable data tested are as follows:

Table 1.  
Latent and manifest variables

Latent Variable (Construct)	Latent Variable (Sub-Construct)	Manifest Variable
ATPI	Cultural Knowledge (CK)	CK1, CK2, CK3, CK4, Ck5
	Blending (B)	B1, B2, B3, B4, B5
	Identity experiencing (IE)	IE1, IE2, IE3, IE4
	Inter-personal skill (IPS)	IPS1, IPS2, IPS3, IPS4
	Active in Professional Communities (APC)	APC1, APC3, APC4, APC5

The table above describes that ATPI has five factors: cultural knowledge, Blending, Identity Experiencing, Inter-personal Skills, and Active in Professional Communities. These five components result from the exploration of the literature review that has been tested through the EFA.

*Data analysis procedure*

This study used confirmatory factor analysis (CFA) to test whether the proposed factors resulting from exploratory factor analysis have sufficient loading factors as accounting teacher professional identity (ATPI) factors. Confirmatory factor analysis (CFA) is a part of structural equation modelling (SEM) with particular aims. CFA is a way of testing how well a prespecified measurement theory composed of measured variables and factors fits reality as captured by data (Hair et al., 2020). The recommended cutoff loading factor is varied from 0.40, 0.50, 0.60, or 0.70. This study utilized a cutoff of 0.50, and several criteria fit the model. Although there are agreed measures between statisticians, these criteria can differ from one reference to another because they can be subjective (Hair et al., 2020; Schumacker & Lomax, 2015). In this study, the following measures are used:

Table 2.  
Size Model fit

Model Fit Criteria	Schumacker & Lomax (2015)	Hair et al. (2020)
Chi-Square	Compares obtained $\chi^2$ value with tabled value for given df	>0.05
The goodness of Fit Index (GFI)	Value close to .90 or .95 reflects a good	0 – 1.0 (a higher value is a better fit).
Adjusted GFI (AGFI)	Value adjusted for df, with .90 or .95	0 (not fit) to 1 (perfect fit)
Root-mean square residual (RMR)	Indicates the closeness of $\Sigma$ to S matrices	<0.05
Standardized RMR (SRMR)	A value less than .05 indicates a good model fit	<0.05
The root-mean-square error of approximation (RMSEA)	Value of .05 to .08 indicates close fit	0.03 to 0.08
Tucker-Lewis Index (TLI)	A value close to .90 or .95 reflects a good model fit	0 to 1 Close to 1 is a better fit

Model Fit Criteria	Schumacker & Lomax (2015)	Hair et al. (2020)
Normed fit index (NFI)	A value close to .90 or .95 reflects a good model fit	0 to 1 Close to 1 is a better fit
Parsimony fit index (PNFI)	Compares values in alternative models	0 (not fit) to 1 (perfect fit)
Akaike information criterion (AIC)	Compares values in alternative models	0 (perfect fit) to a positive value (poor fit)
CFI		0 to 1 Close to 1 is a better fit
RFI		≥0.8
RNI		0 to 1 Close to 1 is a better fit

The table above is a cutoff recommendation for each criterion in the CFA. Based on the two experts, minimum amount must be met during the CFA analysis. These measures will be used in the CFA analysis in this study.

## RESULTS AND DISCUSSION

### Results

#### *Data demographic*

The distribution of this research data consisted of 351 respondents taken from 34 districts/ cities in Central Java. The following is the distribution of respondent data:

Table 3.  
Sample Distribution

No	Region	Total Population	Percent	Sample	Total Sample
1	Banjarnegara	9	0,52%	1,80	2
2	Banyumas	38	2,18%	7,61	8
3	Batang	44	2,52%	8,82	9
4	Blora	102	5,84%	20,44	20
5	Boyolali	18	1,03%	3,61	4
6	Brebes	115	6,58%	23,04	23
7	Cilacap	245	14,02%	49,08	49
8	Demak	23	1,32%	4,61	5
9	Grobogan	59	3,38%	11,82	12
10	Jepara	32	1,83%	6,41	6
11	Kabupaten Magelang	14	0,80%	2,80	3
12	Kabupaten Pekalongan	13	0,74%	2,60	3
13	Kabupaten Semarang	17	0,97%	3,41	3
14	Kabupaten Tegal	110	6,30%	22,04	22
15	Karanganyar	45	2,58%	9,02	9
16	Kebumen	99	5,67%	19,83	20
17	Kendal	40	2,29%	8,01	8
18	Klaten	95	5,44%	19,03	19
19	Kota Magelang	34	1,95%	6,81	7
20	Kota Pekalongan	14	0,80%	2,80	3
21	Kota Salatiga	27	1,55%	5,41	5

No	Region	Total Population	Percent	Sample	Total Sample
22	Kota Semarang	75	4,29%	15,03	15
23	Kota Tegal	68	3,89%	13,62	14
24	Kudus	30	1,72%	6,01	6
25	Pati	42	2,40%	8,41	8
26	Pemalang	4	0,23%	0,80	1
27	Purbalingga	46	2,63%	9,22	9
28	Rembang	16	0,92%	3,21	3
29	Sragen	41	2,35%	8,21	8
30	Sukoharjo	43	2,46%	8,61	9
31	Surakarta	28	1,60%	5,61	6
32	Temanggung	29	1,66%	5,81	6
33	Wonogiri	82	4,69%	16,43	16
34	Wonosobo	50	2,86%	10,02	10
<b>Total</b>		<b>1747</b>	<b>100%</b>		<b>351</b>

The table 3 above shows the distribution of the sample based on the proportion of population members in each region. Cilacap Regency is an area that has the most population members, 245 people or 14.02%. With this distribution, 14.02% of the 351 total samples proposed to originate from this regency, namely 49 respondents. Based on this calculation, each region obtained a sample proportion that is in line with the number of members it has.

Additionally, accounting teachers in Indonesia were dominated by women. The distribution of samples by gender is presented in the following figure:

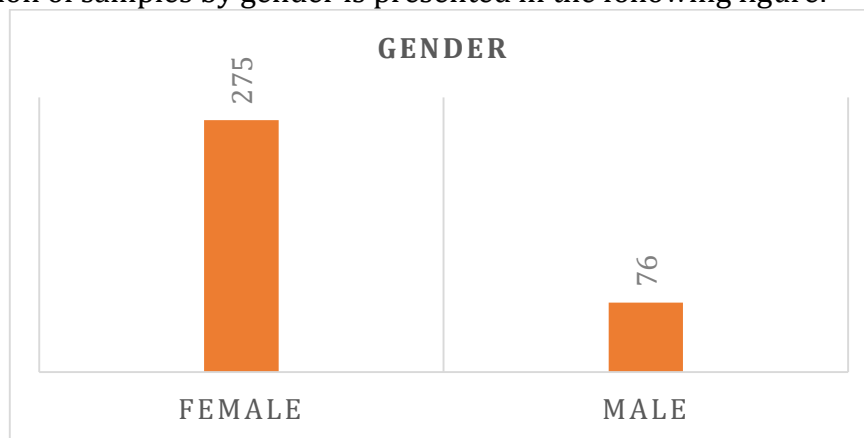


Figure 1.  
Distribution of Samples by Gender

Figure 1 represents the number of samples by gender. There were fewer men than women, 76 (21.65%) compared to 275 (78.35%). This comparison of the number of men and women is because there were fewer male accounting teachers than female accounting teachers.

#### *Second-order Confirmatory Factor Analysis*

Second-order CFA is a technique for interpreting a scale multi-level and multidimensional by conveying various dimensions under the rubric of higher general level factors (Gould, 2015). It means that a construct is measured by several other constructs (sub-constructs); then, some of these sub-constructs are measured

by several manifest variables. The proposed model and the calculation results of the second-order CFA analysis are as follows:

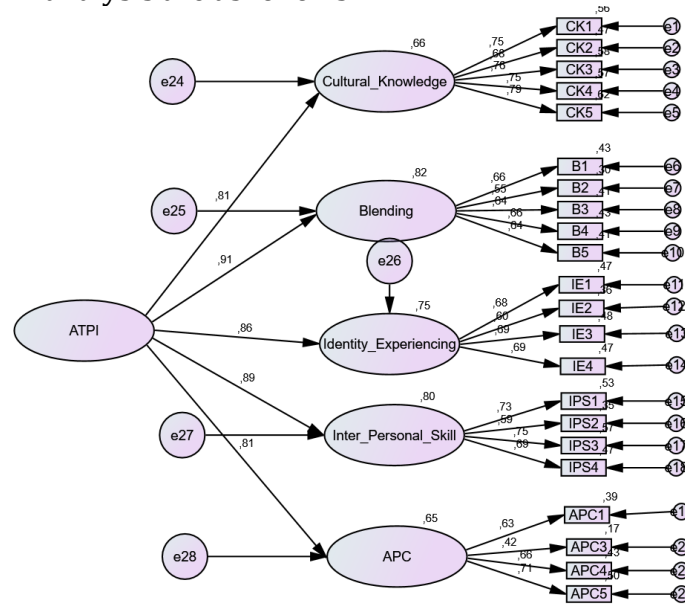


Figure 2.  
Proposed CFA Model

Figure 2 describes the second-order CFA model tested. The Accounting Teacher Professional Identity (ATPI) variable was measured by five sub-constructible, including cultural knowledge, experiencing blending identity, interpersonal skills, and active in professional communities (APC). The value of the second-order CFA for each subconstruct in the ATPI construct was 0.81, 0.91, 0.86, 0.89, and 0.81. The entire value of the loading factor was more than 0.50, even more than 0.70. It means that all sub-constructs are valid variables to measure ATPI. Then, each subconstruct was measured by a manifest variable (first-order). For example, 4 (four) manifest variables directly measured the APC sub-construct. The measurement of APC by the four manifest variables was a first-order CFA analysis with values of 0.63, 0.42, 0.66, and 0.71, respectively. Based on these results, one manifest variable has a loading factor value of less than 0.50, APC3. This variable is recommended to be eliminated from the model. In detail, the loading factor value for each relationship between latent and manifest variables is as follows.

Table 4.  
Standardized Regression Weights Second-Order CFA ATPI Model 1

			Estimate	Cut-off	Interpretation
Cultural_Knowledge	<---	ATPI	,810	0,50	Valid
Blending	<---	ATPI	,907	0,50	Valid
Identity_Experiencing	<---	ATPI	,865	0,50	Valid
Inter_Personal_Skill	<---	ATPI	,893	0,50	Valid
APC	<---	ATPI	,809	0,50	Valid
CK1	<---	Cultural_Knowledge	,749	0,50	Valid
CK2	<---	Cultural_Knowledge	,683	0,50	Valid

			Estimate	Cut-off	Interpretation
CK3	<---	Cultural_Knowledge	,759	0,50	Valid
CK4	<---	Cultural_Knowledge	,755	0,50	Valid
CK5	<---	Cultural_Knowledge	,790	0,50	Valid
B1	<---	Blending	,657	0,50	Valid
B2	<---	Blending	,552	0,50	Valid
B3	<---	Blending	,638	0,50	Valid
B4	<---	Blending	,657	0,50	Valid
B5	<---	Blending	,641	0,50	Valid
IE1	<---	Identity_Experiencing	,683	0,50	Valid
IE2	<---	Identity_Experiencing	,600	0,50	Valid
IE3	<---	Identity_Experiencing	,690	0,50	Valid
IE4	<---	Identity_Experiencing	,687	0,50	Valid
IPS1	<---	Inter_Personal_Skill	,730	0,50	Valid
IPS2	<---	Inter_Personal_Skill	,590	0,50	Valid
IPS3	<---	Inter_Personal_Skill	,753	0,50	Valid
IPS4	<---	Inter_Personal_Skill	,689	0,50	Valid
APC1	<---	APC	,628	0,50	Valid
APC3	<---	APC	,415	0,50	Not Valid
APC4	<---	APC	,659	0,50	Valid
APC5	<---	APC	,709	0,50	Valid

Table 4 depicts the loading factor of each variable relationship. There are two main findings in the table, namely, the five sub-construct latent variables had a loading factor of more than 0.50, and almost all relationships between the manifest variables and the sub-construct latent variables had a loading factor of more than 0.50. One manifest variable had an estimated value of less than 0.50, namely APC3. Therefore, the APC3 manifest variable is recommended to be eliminated in the revised model.

There are three size groups assessing model fit: absolute, incremental, and parsimonious fit indices. The following is the model fit value for the proposed CFA model.



Table 5.  
Absolute Fit Indices Result of Second-Order CFA ATPI Model 1

No	Fit measure	Good Fit	Acceptable Fit	Result	Interpretation
1.	Chi-Square	$\chi^2$ is low relative to df with insignificant p-value ( $p > 0.05$ )		$\chi^2$ : 491,122 df: 208 P: 0.000	Not Fit (Very sensitive with sample number)
2.	GFI	$\geq 0.95$	Close to 0.90	0.888	Acceptable Fit
3.	RMSEA	$\leq 0.05$	$\leq 0.08$	0.062	Acceptable Fit
4.	RMR	Small Value		0.022	Fit
5.	SRMR	$\leq 0.05$	$\leq 0.1$ or $\leq 0.08$	,0544	Good Fit

Table 5 represents the results of the model fit analysis with absolute fit indices criteria. There are five sub-criteria in absolute fit indices: Chi-Square, GFI, RMSEA, RMR, and SRMR. Although the chi-square value did not fit, the chi-square value was susceptible to the number of samples and several other conditions. Considering only chi-square size cannot interpret the actual results. The analysis results showed that the four sub-criteria denoted acceptable and good fit values.

Table 6.  
Incremental Fit Indices Result of Second-order CFA ATPI Model 1

No	Fit measure	Good Fit	Acceptable Fit	Result	Interpretation
1.	TLI	$\geq 0.90$	Close to 0.90	0.898	Acceptable Fit
2.	NFI	$\geq 0.95$	Close to 0.90	0.852	Acceptable Fit
3.	IFI	$\geq 0.90$	$> 0.8$	0.909	Good Fit
4.	RFI	$\geq 0.80$		0.836	Good Fit
5.	CFI	$\geq 0.97$	$\geq 0.80$	0.908	Acceptable Fit

Table 6 displays the value of the model's fit with the criteria of incremental fit indices. This criterion has five indicators: TLI, NFI, IFI, RFI, and CFI. All sizes on this criterion indicated that the model tested had a good level of model fit, namely at the level of acceptable fit and good fit. The IFI and RFI values showed relatively satisfactory numbers, namely 0.909 and 0.836, which exceeded the minimum criteria for the good fit model. The last criterion is parsimonious fit indices with the following results.

Table 7.  
Parsimonious Fit Indices

No	Fit measure	Good Fit	Acceptable Fit	Result	Interpretation
1.	AGFI	$\geq 0.90$	$\geq 0.85$ 0 (not fit) to 1 (perfect fit)	0,864	Acceptable Fit
2.	PNFI	$\geq 0.6$	$\geq 0.5$	0.767	Good Fit
3.	PCFI	$\geq 0.6$	$\geq 0.5$	0.818	Good Fit
4.	PGFI	$\geq 0.6$	$\geq 0.5$	0.730	Good Fit

The parsimonious fit indices values presented in table 7 showed that the model has a good fit indicated by three criteria, namely PNFI, PCFI, and PGFI, showing values more significant than the standard 0.6, namely 0.767, 0.818, and 0.730. Meanwhile, a criterion, AGFI, showed that the value on the acceptable fit was more than 0.85, namely 0.864.

Based on the CFA analysis, a revised model was proposed by eliminating one manifest variable, APC3. It is done because the APC3 loading factor value was less than 0.50, which means that APC3 does not strongly correlate with the latent variable of the APC subconstruct. The results of the analysis of the revised model can be seen as follows.

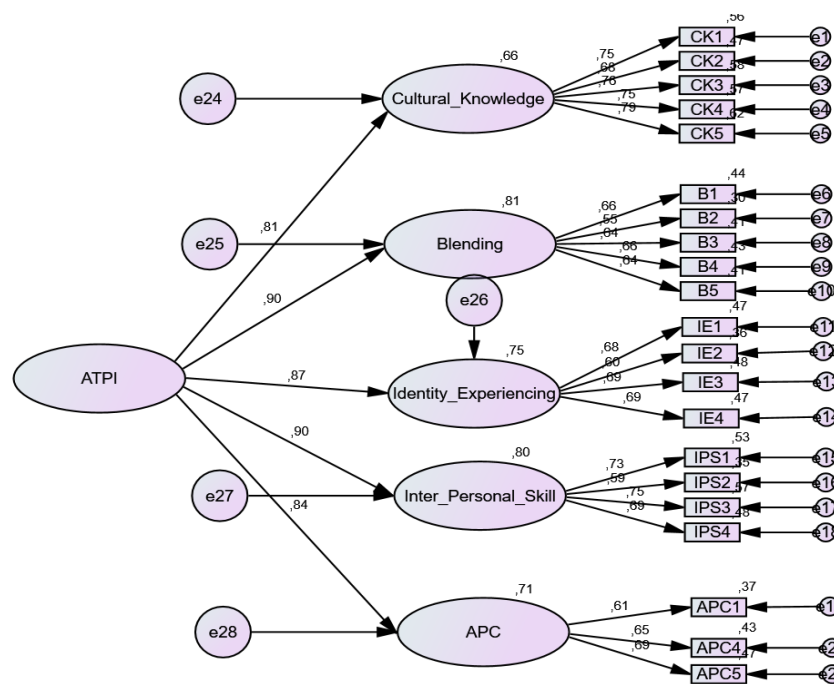


Figure 3.  
Standardized Regression Weights Second-Order CFA Revised Model

Figure 3 describes the revised model for the CFA ATPI analysis. The difference between the first and revised models is that the manifest variable in the APC sub-construct, APC3, has been eliminated. The results in the CFA sub-construct denoted a better loading factor value than the previous, where all manifest variables have shown a loading factor value of more than 0.50. The APC1 loading factor value was 0.61, APC4 was 0.65, and the APC5 loading factor values 0.69. In detail, the comparison of the loading factor between the first model and the revised version is as follows.

Table 8.  
Comparison of Loading Factors of The Original Version with The Revised Version Model

			Estimate Original Model	Estimate Revised Model	Cut-off	Interpretation
Cultural_Knowledge	<---	ATPI	,810	,813	0,50	Valid (increase)
Blending	<---	ATPI	,907	,902	0,50	Valid (decrease)
Identity_Experience	<---	ATPI	,865	,867	0,50	Valid (increase)
Inter_Personal_Skill	<---	ATPI	,893	,895	0,50	Valid (increase)
APC	<---	ATPI	,809	,840	0,50	Valid (increase)
CK1	<---	Cultural_Knowledge	,749	,749	0,50	Valid (consistent)
CK2	<---	Cultural_Knowledge	,683	,684	0,50	Valid (increase)
CK3	<---	Cultural_Knowledge	,759	,759	0,50	Valid (consistent)
CK4	<---	Cultural_Knowledge	,755	,755	0,50	Valid (consistent)
CK5	<---	Cultural_Knowledge	,790	,790	0,50	Valid (consistent)
B1	<---	Blending	,657	,661	0,50	Valid (increase)
B2	<---	Blending	,552	,551	0,50	Valid (decrease)
B3	<---	Blending	,638	,638	0,50	Valid (consistent)
B4	<---	Blending	,657	,656	0,50	Valid (decrease)
B5	<---	Blending	,641	,641	0,50	Valid (consistent)
IE1	<---	Identity_Experience	,683	,685	0,50	Valid (increase)
IE2	<---	Identity_Experience	,600	,597	0,50	Valid (decrease)
IE3	<---	Identity_Experience	,690	,691	0,50	Valid (increase)
IE4	<---	Identity_Experience	,687	,687	0,50	Valid (consistent)
IPS1	<---	Inter_Personal_Skill	,730	,729	0,50	Valid (decrease)
IPS2	<---	Inter_Personal_Skill	,590	,589	0,50	Valid (increase)

			Estimate Original Model	Estimate Revised Model	Cut-off	Interpretation
IPS3	<---	Inter_Personal_Skill	,753	,754	0,50	Valid (increase)
IPS4	<---	Inter_Personal_Skill	,689	,690	0,50	Valid (increase)
APC1	<---	APC	,628	,610	0,50	Valid (decrease)
APC4	<---	APC	,659	,655	0,50	Valid (decrease)
APC5	<---	APC	,709	,688	0,50	Valid (decrease)

The table 8 the analysis results of the revised version of the CFA model compared to the original version of the CFA showed that not all loading factors increased. The loading factor value varies from increasing to having the same value to even decreasing. All manifest variables APC 1, APC4, and APC5, experienced a decrease in the value of the loading factor, although it was not significant after APC3 was eliminated. However, with APC3 elimination, all relationships had a factor loading value of more than 0.50 or even more than 0.70. In addition, several loading factors have increased, such as all loading factors for the ATPI construct with the five sub-constructs (Cultural Knowledge, Blending, Identity Experiencing, Interpersonal skills, and Active in Professional Communities). In the second-order CFA analysis, the relationship between the latent variable constructs and the latent sub variable construct is a priority. Therefore, eliminating one manifest variable, APC3, has increased the loading factor of the latent construct ATPI on the five sub-variables of the latent construct. The model is then tested for the overall fit model with three fit model criteria with the following results:

Table 9.

Comparison Second-Order CFA ATPI Model 1 and Model 2 Absolute fit indices						
No	Fit measure	Good Fit	Acceptable Fit	Result Model 1	Result Model 2	Interpretation
1.	Chi-Square	$\chi^2$ is low relative to df with insignificant p value ( $p > 0.05$ )		$\chi^2$ : 491,122 df: 208 P: 0.000	$\chi^2$ : 426,940 df: 188 P: 0.000	Not Fit (Better)
2.	GFI	$\geq 0.95$	Close to 0.90	0.888	0.896	Acceptable Fit (Better)
3.	RMSEA	$\leq 0.05$	$\leq 0.08$	0.062	0.060	Acceptable Fit (Better)
4.	RMR	Small Value		0.022	0.018	Fit (Better)
5.	SRMR	$\leq 0.05$	$\leq 0.1$ or $\leq 0.08$	0.0544	0.0501	Good Fit (Better)

Table 9 shows the comparison of model fit between the original and the revised version of the CFA Model. All indicators of absolute fit indices in the adjusted model show better results than the first model. Although the chi-square value still indicated an unfit value, as previously explained that the chi-square value was highly dependent on the number of samples and several other factors. The next criterion is incremental fit indices with the following comparison results:

Table 10.

Comparison Second-Order CFA ATPI Model 1 and Model 2 Incremental fit Indices

No	Fit measure	Good Fit	Acceptable Fit	Result Model 1	Result Model 2	Interpretation
1.	TLI	≥0.90	Close to 0.90 0 to 1 Close to 1 is a better fit	0.898	0.898	Acceptable Fit (same)
2.	NFI	≥0.95	Close to 0.90 0 to 1 Close to 1 is a better fit	0.852	0.911	Acceptable Fit (better)
3.	IFI	≥0.90		0.909	0.921	Good Fit (better)
4.	RFI	≥0.80		0.836	0.851	Good Fit (better)
5.	CFI	≥0.97	≥0.80	0.908	0.920	Acceptable Fit (better)

The table 10 the results of comparing the fit model criteria for the incremental fit indices revised version model showed that the fit model was better than the original model. The value of NFI, IFI, RFI, and CFI indicated a significant increase than before. The NFI value from 0.852 increased to 0.911. It is also identified in other aspects. Nevertheless, the TLI value of the revised version model had the same value compared to the original model.

Table 11.

Comparison of Second-Order CFA ATPI Model 1 and Model 2 Parsimonious Fit Indices

No	Fit measure	Good Fit	Acceptable Fit	Result Model 1	Result Model 2	Interpretation
1.	AGFI	≥0.90	≥0.85 0 (not fit) to 1 (perfect fit)	0,864	0,873	Acceptable Fit (better)
2.	PNFI	≥0.6	≥0.5	0.767	0.776	Good Fit (better)
3.	PCFI	≥0.6	≥0.5	0.818	0.824	Good Fit (better)
4.	PGFI	≥0.6	≥0.5	0.730	0.729	Good Fit (decrease)

The table 11 the results of the model fit analysis for the parsimonious fit indices criteria showed an improvement, although it was insignificant. Three indicators, AGFI, PNFI, and PCFI, indicated an increase in model fit from 0.864 to 0.873, 0.767

to 0.776, and 0.818 to 0.824. Meanwhile, the PGFI value decreased even though it was very minimal, only by 0.001.

## Discussion

Measurement of professional identity is one of the interesting topics in identity and professional identity research. In addition to researchers focusing on the operational definition of professional identity in each of the growing professions, the concept of measuring the components of professional identity has a critical position. It is based on identity theory that shows the existence of multiple identities, which are also influenced by a person's interaction in a particular environment/group/community. The professional identity of health workers is undoubtedly different from that of teachers. It is even possible that accounting teachers and English teachers have different components of professional identity. In addition, the location also determines the elements of professional identity even though the profession understudy is similar. For instance, teachers in Hong Kong have professional identity teaching and learning components, student development, school development, professional relationship and service, and personal growth and development (Cheung, 2008). These components may differ from teachers in other countries, including Indonesia. Furthermore, Hanna et al (2020) develop a teacher identity scale consisting of four parts: motivation, self-image, self-efficacy, and task perception. While Gracia et al (2021) designed and validate the teacher professional identity (TPI) measurement consisting of 31 items with four scales: Understanding of TPI, Education level, comparison with other professionals, and influencing factors.

In the context of the professional components of accounting teachers in Indonesia, the element of professional identity is developed based on the results of qualitative research from various countries that have been published and then adopted in Indonesia and combined with the professional identity of accountants, which is distinctive. Among the many components that emerged, Syah et al. (2022) concluded that five components were formed based on Exploratory Factor Analysis (EFA). These results were then confirmed by the results of this study using Confirmatory Factor Analysis with the results of the five sub-constructs submitted as statistically valid as components of the Accounting Teacher Professional Identity (ATPI). Only one variable was eliminated from the 23 manifest variables, APC3. With this elimination, the loading factor and model fit is better than the previous.

The results of this study indicated that the construct of professional identity in accounting teachers is a construct that the five proposed components can measure. These five components can explain the ATPI construct. Therefore, the measurement of the professional identity of accounting teachers in Indonesia can use this instrument that has been developed. Nevertheless, several variables might be included in further research, such as junior-senior relationships (Brouard et al., 2017) and, identity fix-it (Dellaportas et al., 2019), the professional identity of accountants.

These results can be used as a baseline in developing an accounting teacher professional identity scale globally or a baseline for measuring teacher professional identity in general. However, the components in this study are an Indonesian

context, which means that these components may not be a significant part of the professional identity of accounting teachers in other countries. For example, having a high commitment in the context of accounting teachers in Indonesia is an insignificant factor in developing a professional identity (Syah et al., 2022). It is because teachers have the task of teaching and educating, researching, etc. Therefore, professional identity development for teachers and their measurement needs to be based on various contextual factors around the specified object.

The Accounting Teacher Professional Identity Scale (ATPIS), previously developed through Exploratory Factor Analysis (EFA), was confirmed as a valid instrument. It can be used to measure Accounting Teacher Professional Identity (ATPI) in Indonesia after the Confirmatory Factor Analysis (CFA) test. The final scale can be employed to measure the level of professional identity of accounting teachers by considering five components, including cultural knowledge, blending, identity experiencing, interpersonal skills, and being active in professional communities. The development of measuring the professional identity of accounting teachers needs to continue to be developed by highlighting various other contextual factors that have not been considered in this study. These results are still possible to produce a revised version of ATPIS with the latest relevant research results.

## CONCLUSION

The Accounting Teacher Professional Identity Scale (ATPIS), previously developed through Exploratory Factor Analysis (EFA), was confirmed as a valid instrument. It can be used to measure Accounting Teacher Professional Identity (ATPI) in Indonesia after the Confirmatory Factor Analysis (CFA) test. The final scale can be employed to measure the level of professional identity of accounting teachers by considering five components, including cultural knowledge, blending, identity experiencing, interpersonal skills, and being active in professional communities. The development of measuring the professional identity of accounting teachers needs to continue to be developed by highlighting various other contextual factors that have not been considered in this study. These results are still possible to produce a revised version of ATPIS with the latest relevant research results.

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