Development of a Scale to Measure Impression Management in Job Interviews

Irmak Erdogan*

Abstract: This study aims to enhance our understanding of the construct “Impression management in job interviews” and develop a scale for its measurement. A preliminary scale is constructed with the help of existing literature on impression management and by means of qualitative studies consisting of focus groups, in-depth interviews and the application of the critical incident technique. The scale is pretested through an online survey. Final factor analysis of the survey data revealed six factors labeled as “Self-promotion”, “Defensive”, “Modeling”, “Other-focused”, “Avoidance” and “Non-verbal”. Reliability analysis yielded to acceptable results. Convergent and discriminant validity of the scale is assessed with the multitrait-multimethod matrix. The developed final scale is an initial step in filling the gap in common measurement methods in the literature of impression management in job interviews. Implications of the emerged factor structure and the potential practical use of the developed scale are discussed.

Field of Research: Organizational Behavior

1. Introduction

A basic motive of individuals is to be viewed by others in a favorable manner and avoid being seen negatively (Rosenfeld, 1997). Both in social and organizational settings, individuals try to influence the image others have of them by engaging in a variety behaviors, consciously or unconsciously. A specific organizational setting which is ripe for this kind of behavior is the job interview situation in which the concern of a positive image is particularly salient.

Interviews offer individuals the perfect opportunity to manage their impressions because both the interviewer and the applicant are attempting to fit the needs of the other (Godfrey et al., 1986). The present study aims to enhance our understanding of the construct “Impression management in job interviews” and to develop a scale by means of the review of existing literature and the qualitative research method.

2. Literature Review

Impression management (IM) is defined as “conscious or unconscious attempts to control the images that are projected in ... social interactions” (Schlenker, 1980) or similarly as “the process by which people attempt to influence the image others have of them” (Rosenfeld et al., 2002).

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The topic of IM has originally been the focus of sociologists and social psychologists. But it has also received the attention of organizational researchers and become recognized as a common occurrence in organizational settings (Bolino and Turnley, 1999). Drory and Zaidman (2007) suggested that existing research about impression management can be divided into two main approaches. The universal approach focuses on the individual actor and studies impression management in a culture-free or context-free environment, whereas the second approach studies impression management as constructed within several contexts. In line with the second approach which Drory and Zaidman (2007) suggested, IM behaviors have been studied in the organizational context in relation to many areas such as interviews, performance appraisal and career success. Furthermore, IM has been useful in examining a variety of workplace phenomena such as feedback seeking, organizational citizenship behavior, and leadership and management (Bolino et al, 2008).

In addition to individual-level analyses, IM is also investigated at the organizational-level. This stream of research is not as extensive as the individual-level research but suggests that organizations can also make use of IM tactics to create an organizational image (Bolino et al, 2008). Summing up, literature indicates that IM has been studied in relation to a variety of organizational areas. As mentioned before, the focus of the present study will be on IM in job interviews in particular.

2.1. Impression Management in Job Interviews

IM is assumed to become more intentional and focused when people believe that they will gain valued outcomes by fostering particular impressions in others (Schlenker & Weigold, 1992). Consisted with this line of reasoning, a job interview situation constitutes an appropriate context for applicants to elicit IM behaviors since it provides access to desired job opportunities. In a job interview situation, while the interviewer is attempting to gather information about the applicant in the interview, the applicant is similarly trying to convince the interviewer that he or she is indeed the best candidate (Kacmar et al. 1992).

For the applicant, the employment interview is often a very ambiguous and uncertain social situation (Rosenfeld, 1997). The applicant is expected to be "confident but not brash, polite but not sycophantic, lively and interested but not voluble or manic, sufficiently nervous to show an appreciation of the importance of the occasion but not visibly anxious throughout" (Fletcher, 1989). Given the expectations, it is reasonable that the individual will try to control his/her image. Literature suggests that there are different forms of IM tactics which applicants may choose to employ in order to achieve this purpose.

2.2. Forms of Impression Management in Job Interviews

From a general social psychological point of view, Schneider (1981) suggested that IM can take many forms such as verbal statements, nonverbal or expressive behaviors, modifications of one’s physical appearance, and integrated behavior patterns. But Stevens and Kristof (1995) proposed that in an interview situation the use of some of these behaviors would be limited due to interview time and context constraints. They suggested that IM behaviors that are used in job interviews can be basically classified as verbal and nonverbal, and that verbal IM tactics can be further
classified as assertive or defensive. Kacmar et al. (1992), on the other hand, identified two sets of impression management tactics as self-focused-type and other-focused-type tactics. Both classifications have been adopted by many organizational researchers studying IM in job interviews (McFarland et al., 2005; Kacmar 1999; Kristof-Brown et al. 2002; Peeters & Lievens, 2006; Tsai et al., 2005; Van Iddekinge et al., 2007; Tsai et al., 2010). The result of a review of literature to identify a basic framework for studying IM tactics used in job interviews is shown in Figure 1.

Figure 1
A Framework of IM Tactics Used in Job Interviews

Figure 1 shows that IM in job interviews can be comprehensively classified as verbal IM and non-verbal IM. Applicants can make use of a variety of verbal expressions to impress the interviewer in a job interview situation. These verbal IM tactics are further classified as either assertive or defensive, according to their purpose of use.

Assertive IM tactics are used to establish or extend a positive identity. They can either be focused on the target or the actor (Kacmar and Carlson, 1999), termed as other-focused and self-focused tactics respectively. Other-focused impression management tactics are used to increase the target’s interpersonal attraction to or liking for the actor. Most frequently studied other-focused impression management tactics are other-enhancement and opinion conformity. Other-enhancement refers to the praising of another person and being complimentary to the role-players or the organization (McFarland et al., 2005). Opinion conformity refers to expressions of beliefs, values, or attitudes that are known or that could reasonably assumed to be held by the target, given the target’s position, occupation, status, or organizational affiliation (McFarland et al., 2005).

The most frequently studied self-focused IM tactic is self-promotion. Self-promotion refers to verbal demonstration of the possession of desirable qualities such as competence, reliability, conscientiousness and so on (McFarland et al., 2005). In addition to positive self-descriptions, applicants may engage in self-promotion behaviors by using entitlements (claims of responsibility for positive events), enhancements (claims that the event for which one is responsible is more positive than it initially appears), or descriptions of how they overcame obstacles while pursuing goals (Stevens & Kristof, 1995).
Defensive IM tactics, on the other hand, are used to repair one’s image after it has been damaged or questioned (Stevens & Kristof, 1995). It involves the use of explanations by which the individual elaborates on the reasons for negative outcomes (Shaw et al., 2003; Tsai et al. 2010). The following behaviors are included in defensive IM tactics (Tsai et al., 2010): apologies (accepting responsibility for a negative event, offering to make things right, and promising to do better in the future), justifications (accepting responsibility for negative outcomes but not the negative implications) and excuses (shifting responsibility to some external causes).

Applicants can also attempt to impress interviewers by engaging in non-verbal behaviors. Non-verbal IM tactics consist of bodily movements and positions, such as eye contact, limb and facial gestures, and posture (Stevens & Kristof, 1995). Smiling, hand movements, eye-contact, head nods, hand gestures and handshakes are suggested to be non-verbal IM tactics used in job interviews (McFarland et al., 2005). Non-verbal IM tactics are proposed to accompany both assertive and defensive verbal IM tactics (Stevens & Kristof, 1995).

2.3. Effects of Impression Management in Job Interviews

The study of IM in job interviews is important because it can affect interviewer evaluation significantly and make us question the reliability and the validity of the employment interview as a selection device. Literature shows that many organizational researchers have examined the effects of IM on interviewer evaluation. For instance, Gilmore and Ferris (1989) showed that IM tactics positively influenced interviewer evaluation, even when controlling for the effects of applicant credentials. Furthermore, many researchers have studied the effects of different forms of IM tactics on interviewer evaluation or related variables. Kacmar et al. (1992) found that self-focused IM tactics were more effective than other-focused IM tactics in influencing interviewer ratings and job recommendations. Stevens and Kristof (1995) showed that self-promotion tactics and nonverbal IM tactics had a positive effect on interviewer evaluation, whereas other-enhancement had no significant influence. Howard and Ferris (1996) found that nonverbal IM tactics lead to higher perceived job suitability of the applicants by affecting interviewers’ perceived competence of the applicants. Kristof-Brown et al. (2002) showed that self-promotion tactics significantly affected interviewers’ perceptions of person-job fit, and nonverbal IM tactics correlated positively with interviewer perceived similarity. Ellis et al. (2002) found that both ingratiation and self-promotion tactics correlated positively with interviewer evaluation.

Some researchers have attempted to examine the moderating roles of interview structure in the effectiveness of IM tactics. Tsai et al. (2005) found that the more structured the interview, the weaker the relationship between non-verbal IM and interviewer evaluation. Also they showed that when the interview was of longer duration, the effects of applicant self-focused tactics became insignificant. Peeters and Lievens (2006) found that behavior description interviews triggered self-focused and defensive tactics, whereas situational interviews triggered other-focused tactics. VanLdekeinge et al. (2007) also found that interview format predicted self-focused and defensive behaviors.
2.4. Measurement of Impression Management in Job Interviews

Literature suggests that IM behavior has a substantial effect on interviewer evaluations and thus on the effectiveness of the selection process. Although the measurement of IM is a critical part in studying the construct, there is a significant lack of measurement tools in the literature. Bolino and Turnley (1999) stated that one approach of measuring IM involves observing and recording participants’ IM behaviors in an experimental context or under naturally occurring conditions. Supporting their view, most of the studies on IM in job interviews use coding schemas in their measurement procedures (Ellis et al., 2002; McFarland et al., 2005; Peeters & Lievens, 2006; VanIddekinge et al., 2007; Weiss & Feldman, 2006). For instance, in a study of Ellis et al. (2002) about IM in structured interviews, IM was measured by coders who listened to interview tapes and coded IM behavior. Behaviors were coded with respect to descriptions gathered from Stevens and Kristof (1995). McFarland et al. (2005) also used trained coders who listened to interview tapes, categorized the statements made by the candidates and recorded the frequency with which candidates used each tactic.

Similarly, VanIddekinge et al. (2007) measured IM behaviors in interviews by using coders who listened to interview tapes and recorded the frequency with which interviewees displayed each behavior using behavior definitions and coding procedures described in previous research. Peeters and Lievens (2006) measured verbal and nonverbal IM tactics in behavior description and situational interviews with coders who were trained to recognize verbal and nonverbal IM tactics. Likewise, Weiss and Feldman (2006) examined participants’ use of lies in job interviews by using coders who read and categorized each participant’s lie as either involving IM or not involving IM. Usually, multiple coders are used in these studies to increase reliability of the measurement procedure.

An extensive search of literature indicates the lack of common measurement methods of IM in job interviews. Although there are scales constructed and validated for measuring IM in other organizational settings (Bolino & Turnley, 1999; Drory & Zaidman, 2007; Kumar & Beyerlein, 1991; Wayne & Ferris, 1990), the only scale measuring IM in job interviews was constructed by Stevens and Kristof (1995). It consists of five distinct scales measuring self-promotion, fit-with-organization, opinion conformity, other-enhancement and nonverbal behavior. The scale has been used in other studies on IM in job interviews (Kristof-Brown et al. 2002; Tsai et al. 2005), but it hasn’t been validated.

3. Methodology

One of the objectives of the study is to develop a scale measuring IM in job interviews. The literature has provided the researcher with an initial understanding of the construct. The following section discusses qualitative studies conducted to enhance this understanding.
3.1. Qualitative Studies

One of the features of qualitative research is to contribute insights into existing or emerging concepts that may help to explain human social behavior (Yin, 2011). In this study, we made use of qualitative research to gain a better understanding of IM behaviors used in job interviews. As discussed before, literature on IM in job interviews provides us only a very limited set of items. Thus, collecting the views, perspectives and experiences of people was important for the definition of the concept and for the generation of scale items. Two focus groups, two in-depth interviews and the critical incident technique were applied in the qualitative part of the study.

3.1.1. Focus Group Interviews

The purpose of the interviews was to get an understanding of the construct of IM in job interviews, to find out its different dimensions and the common impression management behaviors used in job interviews. Participants were asked the following main questions:

- What comes to your mind when I say impression management in job interviews?
- What do you think are the behaviors that a job applicant can engage in to make a positive impression on the interviewer?
- Can you please describe different ways in which you have tried to impress your interviewer in a job interview?

The first focus group consisted of six individuals, who are working as professionals in different sectors, their age ranging from 27 to 33. The second focus group consisted of five new-graduates and senior students with ages ranging from 22 to 24. Before the focus groups, participants were asked whether they have had an experience of participating in job interviews. Each participant in both focus groups has stated to have had such an experience. Gathering this information was important with respect to the quality and richness of data obtained from participants.

Both interviews were sound-recorded and transcribed by the researcher. Common themes were identified, similar statements were grouped under common themes and their frequencies were calculated by counting the number of sentences on each of the common themes.

3.1.2. In-depth Interviews

In order to get a different perspective on IM behavior in job interviews and to reach in-depth information, two HR professionals, both women, working in a HR consultancy firm were contacted. Both of them had about 2 years of experience in selection and recruitment and conducted job interviews regularly. The main questions asked to the professionals were similar to that of focus groups:

- What comes to your mind when I say impression management in job interviews?
- What do you think are the behaviors that a job applicant can engage in to make a positive impression on the interviewer?
- Can you please describe different ways in which participants have tried to impress you in a job interview?

Each interview lasted about one hour, evolved around these questions and provided rich examples about candidates’ impression management behavior in job interviews. The same content analysis procedure as in focus group interviews was applied to indepth interviews.

### 3.1.3. Critical Incident Technique

At the end of both focus group interviews, each participant was asked to complete a form and describe a critical incident in which they engaged in an impression management behavior in a job interview. The critical incident technique is developed by Flanagan (1954) and it may be used in interviews as a way of obtaining detailed descriptions from respondents of events in defined situations (Hussey and Hussey, 1998). The use of critical incident technique was preferred considering that participants might be uncomfortable in sharing some personal experiences of impression management in a group situation. In addition to the data obtained from interviews, a total of eight critical incidents were collected in the focus groups. Three of the participants did not provide critical incidents. In addition, a group of people were reached online and asked to complete the critical incident form. Eight people completed the form; at the end a total of 16 critical incidents were collected. Critical incidents were also grouped under common themes.

### 3.2. Item Generation and Initial Item Purification

A first set of items was generated through the literature review. Some items gathered from existing scales were related to impression management in organizational context in general (Bolino & Turnley, 1999; Drory & Zaidman, 2007; Kumar & Beyerlein, 1991; Wayne & Ferris, 1990). These were adapted to the job interview situation. Some other items were merged or re-stated to match the general format of items. Also, some items were generated from descriptions of IM behavior in literature, not included in any of the existing scales (Tsai et al., 2010).

Another set of items was generated through qualitative studies. A number of new items were generated from common themes; nevertheless items from the literature review generally captured the essence of behavior described in qualitative studies. Items generated from literature review and qualitative studies were combined and an initial item pool of 55 items describing specific behaviors intended to positively impress the interviewer in a job interview situation were generated.

For the purpose of item purification; similar items were combined, ambiguous items were eliminated or restated by the researcher. Remaining 39 items were then presented to two judges - both graduate students in Management - who were asked to categorize the statements into six different categories which were labeled by the researcher in accordance with the impression management literature, as well as in relation with the patterns emerged from qualitative studies. Non-verbal, self-promotion, defensive and other-focused categories were borrowed from the literature; in addition two new categories, deception and modeling, were added with respect to patterns emerged from qualitative studies. The common themes “lie/deceive”,
“overrate yourself”, “hide negative experiences/characteristics”, and “underrate negative experiences/characteristics” were not captured in the categories that existing literature provided and pointed out the need for adding a new category. The new category was labeled “Deception”. Also, another category “Modeling” was added. Literature review and qualitative studies both indicated that self-promotion concentrates on the demonstration of qualities which the candidate actually possesses, whereas some IM behaviors involve the presentation of an image of a “model employee” by mimicking personality attributes expected from the model employee. To capture the latter form of behaviors, “Modeling” was added as a separate category. The following short category descriptions were given to the judges:

1) Non-verbal (NV): All non-verbal behaviors used to impress the interviewer.
2) Self-promotion (SP): Demonstration of possessed desirable qualities.
3) Defensive (DEF): Attempts to protect or repair one’s image.
4) Modeling (MOD): Creating an image of a model employee
5) Other-focused (OF): Attempts to increase interpersonal attraction to or liking between the interviewer and the candidate
6) Deception (DC): Attempts to deceive or mislead the interviewer

The percentage of agreement between judges is 79.5%. The use of simple percentage agreement between judges is criticized since percentages do not take into account the likelihood of chance agreement between raters (Hughes and Garrett, 1990). Thus, the reliability of inter-judge agreement is calculated using both Cohen’s Kappa and Reliability Index. Cohen’s Kappa is calculated to be 0.749 and Reliability Index is calculated to be 0.868. Both values show that there is a satisfactory level of inter-judge agreement in categorizing the observations.

As a result of inter-judge reliability analysis, eight more items which did not fit clearly into one category were eliminated. The final list consisted of 31 items; 17 of them derived from literature review and 14 of them were obtained from qualitative studies. The final list of items, their sources, and belonging categories are presented in Table 1.
### Table 1
The Final List of Items

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-verbal</strong></td>
<td>Give frequent smiles</td>
<td>Stevens &amp; Kristof (1995), Kumar &amp; Beyerlein (1991)</td>
</tr>
<tr>
<td></td>
<td>Maintain eye-contact</td>
<td>Stevens &amp; Kristof (1995)</td>
</tr>
<tr>
<td></td>
<td>Dress chic and appropriately</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Shake hands firmly and confidently</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Arrive just in time for the interview</td>
<td>Qualitative</td>
</tr>
<tr>
<td><strong>Other-focused</strong></td>
<td>Compliment the interviewer</td>
<td>Bolino &amp; Turnley (1999), Stevens &amp; Kristof (1995), Wayne &amp; Ferris (1990)</td>
</tr>
<tr>
<td></td>
<td>Find and discuss interests you shared in common with the interviewer</td>
<td>Stevens &amp; Kristof (1995)</td>
</tr>
<tr>
<td></td>
<td>Make prior research about the interviewer</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Indicate your love and respect for the organization</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Praise the organization</td>
<td>Stevens &amp; Kristof (1995)</td>
</tr>
<tr>
<td></td>
<td>Make prior research about the organization</td>
<td>Qualitative</td>
</tr>
<tr>
<td><strong>Self-promotion</strong></td>
<td>Make the interviewer aware of your talents or qualifications</td>
<td>Bolino &amp; Turnley (1999)</td>
</tr>
<tr>
<td></td>
<td>Make the interviewer aware of your accomplishments</td>
<td>Bolino &amp; Turnley (1999)</td>
</tr>
<tr>
<td></td>
<td>Demonstrate your experience</td>
<td>Drory &amp; Zaidman (2007)</td>
</tr>
<tr>
<td></td>
<td>Demonstrate your knowledge and expertise</td>
<td>Stevens &amp; Kristof (1995)</td>
</tr>
<tr>
<td></td>
<td>Show your enthusiasm for the job</td>
<td>Stevens &amp; Kristof (1995)</td>
</tr>
<tr>
<td></td>
<td>Demonstrate your fit with the job</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Prepare before the interview to express yourself more clearly</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Convince the interviewer that you will be successful at the job</td>
<td>Qualitative</td>
</tr>
<tr>
<td><strong>Modeling</strong></td>
<td>Create the impression that you are a &quot;good&quot; person</td>
<td>Wayne &amp; Ferris (1990)</td>
</tr>
<tr>
<td></td>
<td>Create the impression that you are self-confident</td>
<td>Drory &amp; Zaidman (2007)</td>
</tr>
<tr>
<td></td>
<td>Present yourself as a hard-working and conscientious person</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Present yourself as a friendly and polite person</td>
<td>Wayne &amp; Ferris (1990)</td>
</tr>
<tr>
<td><strong>Deception</strong></td>
<td>Avoid talking about negative experiences</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Avoid talking about your negative characteristics</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Overrate your strengths and accomplishments</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Underrate your weaknesses and failures</td>
<td>Qualitative</td>
</tr>
<tr>
<td><strong>Defensive</strong></td>
<td>Provide justifications for negative experiences</td>
<td>Tsai et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>Provide apologies for failures</td>
<td>Tsai et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>Give excuses for negative events</td>
<td>Tsai et al. (2010)</td>
</tr>
<tr>
<td></td>
<td>Defend yourself for negative experiences</td>
<td>Tsai et al. (2010)</td>
</tr>
</tbody>
</table>

#### 3.3. Survey

The final 31 items were randomly mixed and arranged in the form of a questionnaire. The question for each item was “How often do you behave as described in the statements below to impress your interviewer in a job interview situation?” The
answers were rated on a 5-point likert scale ranging from “always” to “never”. Participants were also asked to give a percentage score to each item. The use of multi-methods was necessary for the analysis of reliability and validity of the developed instrument. In addition, one general item measuring impression management behavior in job interviews, “Engage in behaviors to impress the interviewer”, was added to the questionnaire. Demographic questions about participants’ age, gender and education level were also asked. The scale was published at an online social networking site and sent to a sample of 241 people online, who were chosen on the basis of convenience of access. In total, 83 people participated in the study. The sample consisted of 65% females and 35% males. The vast majority of participants were 24-30 years old and about half of them were either graduate students or they were holding a graduate degree.

4. Findings

Data collected from 83 respondents was coded and exported to the data analysis software SPSS 16.0. Descriptive analysis, exploratory factor analysis and reliability analysis were conducted with the data.

4.1. Descriptive analysis

Descriptive analysis provided evidence that distribution of observations is close to a normal distribution. Highest mean values belong to items from the nonverbal IM: “Arrive just in time for the interview” (4,78) and “Dress chic and appropriately” (4,71). Lowest mean values belong to items “Compliment the interviewer” (1,77) and “Give excuses for negative events” (1,93).

4.2. Factor analysis

To determine whether the data set can be put to factor analysis, Kaiser-Meyer-Olkin (KMO) test of sample adequacy and Barlett’s test of sphericity have been applied. Results of the tests were above acceptable levels (KMO=0,616; Barlett significance=0,000). Factor analysis with principal components method and varimax rotation with Kaiser normalization is conducted to determine the factors. As a result of the initial factor analysis 10 factors emerged, which explained 68,656% of the total variance. Some of the items were eliminated either because their factor loadings were too low, they loaded under more than one factor or they emerged as a single item factor. As a result of a series of factor analyses, 9 items were deleted. Final factor analysis revealed six factors explaining 60,832% of the total variance. Although total variance explained has decreased, further analysis is decided to be carried on with these six factors since they each represented a meaningful categorization.

Items were generally placed in predicted categories with some exceptions. For instance, “Dress chic and appropriately” loaded under the Modeling factor rather than the predicted Non-verbal factor. Apparently, dressing for the interview is used as a tactic to create an image of a model employee. The items “Underrate your weaknesses and failures” and “Overrate your strengths and accomplishments” were both loaded under the Defensive factor, rather than the predicted Deception factor. It
appears that these tactics are used as a means of protecting or repairing one’s image after it has been damaged or questioned, rather than deceiving the interviewer a priori. Also, items belonging to the predicted Deception factor “Avoid talking about your negative characteristics” and “Avoid talking about negative experiences” emerged as a separate factor which was named Avoidance. The fact that Deception didn’t emerge as a factor indicates that it may be considered as unethical behavior outside the scope of IM.

4.3. Reliability Analysis

Reliability analysis of the remaining 22 items resulted in a Cronbach’s alpha of 0.731. Reliability analyses were also conducted separately for each factor. Cronbach’s alpha values for self-promotion, defensive, modeling, other-focused, avoidance, and non-verbal factors were 0.766; 0.764; 0.674; 0.586; 0.732 and 0.535 respectively. Table 2 represents a summary of the results of the reliability and factor analyses.

Table 2
Results of the Factor and Reliability Analysis

<table>
<thead>
<tr>
<th>Factor Loading</th>
<th>Self-promotion (Cronbach’s Alpha=0.766)</th>
<th>Defensive (Cronbach’s Alpha=0.764)</th>
<th>Modeling (Cronbach’s Alpha=0.674)</th>
<th>Other-focused (Cronbach’s Alpha=0.586)</th>
<th>Avoidance (Cronbach’s Alpha=0.732)</th>
<th>Non-verbal (Cronbach’s Alpha=0.535)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make the interviewer aware of your talents or qualifications</td>
<td>0.825</td>
<td>Provide justifications for negative experiences</td>
<td>0.804</td>
<td>Present yourself as a friendly and polite person</td>
<td>0.795</td>
<td>Avoid talking about negative experiences</td>
</tr>
<tr>
<td>Make the interviewer aware of your accomplishments</td>
<td>0.715</td>
<td>Defend yourself for negative experiences</td>
<td>0.784</td>
<td>Dress chic and appropriately</td>
<td>0.636</td>
<td>Avoid talking about your negative characteristics</td>
</tr>
<tr>
<td>Demonstrate your knowledge and expertise</td>
<td>0.646</td>
<td>Give excuses for negative events</td>
<td>0.635</td>
<td>Present yourself as a hard-working and conscientious person</td>
<td>0.636</td>
<td>Shake hands firmly and confidently</td>
</tr>
<tr>
<td>Demonstrate your fit with the job</td>
<td>0.642</td>
<td>Overrate your strengths and accomplishments</td>
<td>0.598</td>
<td>Create the impression that you are self-confident</td>
<td>0.557</td>
<td>Maintain eye-contact</td>
</tr>
<tr>
<td>Convince the interviewer that you will be successful at the job</td>
<td>0.580</td>
<td>Underrate your weaknesses and failures</td>
<td>0.592</td>
<td></td>
<td></td>
<td>Give frequent smiles</td>
</tr>
</tbody>
</table>

Reliability values of other-focused and nonverbal factors are 0.586 and 0.535 respectively, considerably lower than other factors. Peter (1979) states that in early stages of research, a modest reliability in the range of 0.5 and 0.6 will suffice.
Nevertheless, lower reliability scores suggest that the factors need to be further developed.

4.4. MTMM

To analyze reliability, convergent validity and discriminant validity of the constructed scale, MTMM (Multitrait-Multimethod) analysis has been conducted. The MTMM matrix was developed by Campbell and Fiske (1959) and offers a technique for assessing construct validity and discriminant validity of a set of measures. In this study, a multimethod approach has been applied. Traits have been measured by two methods, first with an interval 5-point likert scale, and second with a ratio scale (percentage ratings). Six factors emerged from factor analysis will be treated as traits of the MTMM matrix.

The MTMM matrix basically consists of correlations between several traits measured by each of several methods. The MTMM matrix for the present study has been constructed by calculating Pearson correlations between six traits (self-promotion, defensive, modeling, other-focused, avoidance, and non-verbal) measured by each of the two methods (interval scale and ratio scale). The MTMM matrix is presented in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>Method 1 (interval)</th>
<th>Method 2 (ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SP</td>
<td>DEF</td>
</tr>
<tr>
<td><strong>Method 1 (interval)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>0.766</td>
<td></td>
</tr>
<tr>
<td>DEF</td>
<td>-0.024</td>
<td>0.764</td>
</tr>
<tr>
<td>MOD</td>
<td>0.425</td>
<td>-0.115</td>
</tr>
<tr>
<td>OF</td>
<td>0.269</td>
<td>0.293</td>
</tr>
<tr>
<td>AVD</td>
<td>0.062</td>
<td>0.258</td>
</tr>
<tr>
<td>NV</td>
<td>0.262</td>
<td>-0.096</td>
</tr>
</tbody>
</table>

(SP: Self-promotion, DEF: Defensive, MOD: Modeling, OF: Other-focused, AVD: Avoidance, NV: Nonverbal)

The validity diagonal shows correlations between same traits measured by different methods. Contrary to the rest of the matrix, coefficients in the reliability diagonal are not Pearson correlations, but Cronbach’s alpha values of each trait measured by two methods. For the construction of the MTMM matrix, reliability analysis for each IM factor has also been conducted with the data obtained from ratio scales. Cronbach’s alpha values for self-promotion, defensive, modeling, other-focused, avoidance, and non-verbal factors were 0.797; 0.865; 0.690; 0.649; 0.713 and 0.578 respectively.
The condition for reliability is that coefficients in the reliability diagonal should consistently be the highest in the matrix (Campbell and Fiske, 1959). In this case, although reliability coefficients are generally high except for OF-Method1/OF-Method1 (0.586), NV-Method1/NVMethod1 (0.535) and NV-Method2/NV-Method2 (0.578), some of the values in the validity diagonal are higher than reliability values. This situation is undesirable, since logically a trait should be more highly correlated with itself than with anything else. Higher correlations in the validity diagonal indicate that there isn’t enough method variance between two methods. The fact that both methods have been applied in the same questionnaire, at the same time and using the same items may explain the high correlations between same traits measured by different methods. If maximally different methods could be used, the coefficients in the validity diagonal would be significantly lower.

The observation that coefficients in the validity diagonal are significantly different from zero and high enough to warrant further investigation, provide evidence for convergent validity. As mentioned before, high correlations may be partly due to the bias created in the administration procedure. Nevertheless, it is suggested that when the effect of method factor is controlled, coefficients would still be different from zero and high enough to provide evidence for convergent validity.

Coefficients in the validity diagonal are higher than values lying in their column and row in the same heteromethod block. Moreover, validity coefficients are higher than all coefficients in the heterotrait-monomethod triangles with only one exception (OF-method1/OF-method2). The latter observation provides evidence that trait factors are stronger than methods factors. Both observations provide evidence for discriminant validity. A last condition for discriminant validity is that the same pattern of trait interrelationship should be seen in all triangles. A careful investigation of the matrix points to a similar pattern of correlations in the triangles. It can be concluded that there are strong evidences for discriminant validity.

5. Conclusion and Limitations

Aims of the study were to thoroughly analyze and understand IM in job interviews, explore its dimensions, and develop a scale measuring the construct. The developed final scale, presented in the Appendix, is an initial step in filling the gap in common measurement methods in the literature of IM in job interviews. The emergence of “avoidance” as a new factor indicates the presence of untapped areas in the construct. The new factor needs to be further examined by organizational researchers.

One limitation of the scale is the relatively low reliability scores of “other-focused” and “non-verbal” IM factors, suggesting that these factors require further investigation. In the next step of the research, subsequent qualitative research can be directed to these factors to better understand and develop them.

Another limitation of the study is its sample. Sample of the present study is not representative of the population due to constraints of the researcher. Participants have been selected by convenience of access and the sample size of 83 is not
sufficient for the validation of the scale. In the next step of the research, the scale needs to be validated by a large enough and representative sample.

The present study made use of the MTMM matrix for the validation of the scale matrix. There have been some biases due to the application of both methods at the same time and using the same question. In following studies, the scale needs to be validated by using maximally different methods.

REFERENCES


